Interest Groups and Contemporary Agricultural Policy: An Examination of Niche Theory

THESIS

Presented in Partial Fulfillment of the Requirements for the Degree Master of Science in the Graduate School of The Ohio State University

By

Hannah Marie Stith Scott

Graduate Program in Environment & Natural Resources

The Ohio State University

2015

Master's Examination Committee:

Dr. Jeff Sharp, Advisor

Dr. Kerry Ard

Dr. Neal Hooker

Abstract

Interest organizations endeavor to influence government in ways that are beneficial for their stakeholders making their activities significant for both theoretical and practical reasons. This research examined the structure of the contemporary agricultural interest group community to explore theoretical questions about whether pluralism exists in agricultural policy making processes and whether agricultural interest groups create policy engagement niches. From a practical perspective, the project examined the contemporary federal agricultural interest group community to assess what groups participate and how. Lobbying disclosure data from the 112th U.S. Congress was analyzed using descriptive statistics and cluster analysis, complemented by organizational interviews. Analysis indicated a few key findings: 1) agricultural policy encompassed a variety of issues but the domain had a strong focus on agricultural production and the environment; 2) the federal agricultural interest group community encompasses a large and diverse set of actors across a variety of interests and the majority of these groups were not considered farm organizations; 3) most of the organizations that engage federal agricultural policy are more specialized than general, but generalist groups are the most active of all organizations types; 4) the vast majority of interests engage in a limited fashion in the domain, which is simultaneously characterized by policy bandwagons and issue niches; 5) patterns of engagement by the overwhelming majority of interest groups

in the agricultural domain were similar, while a few of the 1,235 organizations in the community exhibited unique lobbying patterns carving out policy engagement niches; 6) interview responses indicated mixed results for the existence of niche partitioning behavior in the federal agriculture domain, aligning with patterns of lobbying in which a portion of organizations carved out unique niches, but the vast majority did not. These findings have implications for the niche theory of interest representation, including the competitive exclusion principle, and for understanding federal agricultural policy making processes.

Acknowledgments

My sincere thanks go to all who offered guidance and assistance throughout the research and writing process, including Dr. Jeff Sharp, Dr. Neal Hooker, Dr. Kerry Ard interviewees and their organizations, David Drake, all other reviewers and my family.

Vita

May 2009 ..... Georgetown High School

2013 ..... B.A. Sociology, Duke University

Summa cum laude and Distinction in Arts and Sciences

2013 ..... Phi Beta Kappa, Duke University

2013-2015 ..... Graduate Fellow and Associate, School of Environment and Natural Resources, The Ohio State University

2015-present……Program Manager, College of Food, Agricultural and Environmental Sciences, The Ohio State University

Publications

Scott, H. (2013). "Burley." *Contexts*, 12(3), 64-71. DOI: 10.1177/1536504213499882

Fields of Study

Major Field: Environment & Natural Resources

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Interest organizations endeavor to influence government in ways that are beneficial for their stakeholders and as such their activities inherently "impinge[s] on questions of democracy and representation" (Halpin & Thomas 2012, p. 582). For this reason, the activities of interest groups are significant for both their theoretical and practical implications. How do interest groups endeavor to influence policy? Are they effective? What does this influence mean for democratic ideals? All are questions conjured by critical thinking about interest groups' role in American policy and politics. These same questions were the impetus for this research, particularly how they apply to contemporary agricultural policy in the United States.

Theoretically, some political science theories have linked interest organizations' activities to the need to effectively use resources and establish unique identities (Browne 1990; Gray & Lowery 1996). The niche theory of interest representation examines the structure of organized interest communities, emphasizing that "organized interests define themselves in terms of carefully constructed issue niches" due to competition for attention, support, and limited resources (Browne 1990, p. 477). Interest groups thus create unique niches that consist of specific policy agendas and resources in order to both more effectively influence policy and to survive as an organization (Gray & Lowery

1996). The implications of niche theory for interest communities include: 1) interest groups will partition the resources in a community in order to create unique realized niches; 2) interests with defined niches, will have a competitive advantage over other organizations when it comes to influence and organizational survival; 3) in order to survive and effectively influence policy, generalist organizations will begin to specialize in areas where they can realize a competitive advantage (Lowery et al., 2012). Looking specifically at influence over policy agendas, those groups with well-defined and specific niches have been found to be more effective in influencing policy than groups engaged in a broad range of issues (Browne 1990).

Practically, a thorough understanding of interest group communities can inform policy stakeholders and citizens. For instance, the information can point to who attempts to influence policies and in what ways and to the relationships between policy stakeholders. These factors can lead to a fuller understanding of policy making processes and outcomes.

Federal agricultural policy covers a wide range of issues including nutrition, rural development, agricultural commodity programs, crop insurance, conservation and environmental programs, energy, and trade, among others (Johnson & Monke 2013). The wide impacts and the unique characteristics of the agricultural policy domain, including the fact that the domain is characterized by a wide range of issues and expectation of conflict is high (Browne 1990; Bonnen, Browne, and Schweikhardt 1996), make it an important case for understanding niche theory and the manner of interest group participation. And while niche theory was supported by research on agricultural policy in

the late 1980's and early 1990's, it is uncertain how the theory would apply to the contemporary agricultural policy domain. Contemporary federal agricultural policy has shifted toward more general policies, suggesting a high level of influence by generalist farm organizations (Wilson 2005; Reimer 2013). But perhaps more importantly, United States' agriculture has changed in myriad ways since the late 1980's and early 1990's. The "great agricultural transition" outlined by Linda Lobao and Katherine Meyer (2001), characterized by declining numbers of farms, a declining farm population, greater reliance on hired labor, and growth in farm acreages, sales, and real estate capitalization, has continued and been exacerbated by new "discontinuous social forces" within the 21st century U.S. agro-food system (Buttel 2003).

This research examined niche theory through the lens of the contemporary federal agricultural policy domain. Not only did it address the relevance of the theory in the domain, but perhaps more importantly, it engaged a broader question regarding the existence of pluralism within the domain. Because "the generalized pluralist theme is that multiple interests…interacting together both inside and outside of government and effectively representing all components of a specific society…produce a democratic process for governing" (Browne 1990, p. 478), the implications of niche theory include questions regarding pluralism in democratic processes. While this research did not examine the complex issue of interest group influence or effectiveness, it provides a useful basis for later research to assess the relative influence and effectiveness of agricultural interest groups.

The project examined the structure of the contemporary agricultural interest group

community to explore theoretical questions about whether pluralism exists in agricultural policy making processes, whether agricultural interest groups create policy engagement niches, and how the competitive exclusion principle plays out in the domain. From a practical perspective, the project examined the agricultural interest group community to assess such questions as who participates, what is the manner of their participation, and how is agricultural policy characterized at the end of the first decade of the 21st century?

Chapter 2: Pluralism, Niche Theory and Agriculture

What is an interest group?

Alexis de Tocqueville, in his classic piece *Democracy in America*, claimed, "Americans of all ages, all stations in life, and all types of disposition are forever forming associations" (Fiorina & Peterson 1998, p. 201). Interest groups represent one such form of association and political participation in the United States. Broadly defined, an interest group is an "organization or association of people with common interests that engages in politics on behalf of its members" (Fiorina, Peterson, Johnson & Voss 2004, p. 532). Scholars within sociology have defined these groups as "voluntary associations independent of the political system that attempt to influence the government" (Andrews & Edwards 2004, p. 481). A more specific definition by Wright (1993) claims interest groups are

> a collection of individuals or a group of individuals linked together by professional circumstance, or by common political, economic, or social interests, that meets the following requirements: 1) its name does not appear on an election ballot; 2) it uses some portion of its collective resources to try and influence decisions made by legislative, executive, or judicial branches of national, state, or

local governments; and 3) it is organized externally to the institution of government that it seeks to influence. (p.22-3)

Within the social sciences, the two major lines of interest group research investigate group formation/maintenance and influence on government (Fiorina et al., 2004).

Pluralism and Neopluralism

Beginning in the 1960's, American political science was dominated by Robert Dahl's pluralist perspective, which was foremost a theory of political power responding to C. Wright Mill's power elite theory. The major thesis of pluralism was that American political processes were characterized by decentralized power in which political parties and elections played dominant roles. When pluralist perspectives were applied to interest group research, organizations were theorized to gain political power primarily from the resources and time donated to them by citizens (McFarland 2010). The idea that "those representing various private parties will in fact rationally mobilize their resources and play out their interests by active participation on some generally level field of contest," (Browne 1990, p. 478) guided the assumption that political participation by multiple interests across a variety of societal groups ensured democratic governance. The major critique of pluralist theory—that it does not account for unequal capacities to organize and differential resource availability, leading to differential access and influence—lead to shifts in the dominant paradigm of interest group research in the 1970's and 1980's. Pluralism was replaced by a type of multiple-elite theory (Browne 1990; McFarland 2010).

Since the 1980's, the dominant American political science paradigm in interest group research shifted yet again, to neopluralism. McFarland (2010) presents neopluralism as,

> accepting Dahl's pluralism in finding power and interest groups in American politics to be held by multiple groups and individuals. But neopluralism is further defined as giving priority emphasis (unlike Dahl) to the existence of hundreds of policy issue areas, and to the finding that while many issues areas are characterized by a plurality of groups, some issues areas are elitist, ruled by a single coalition or perhaps having just a handful of influential groups. (p. 42)

According to Lowery & Gray (2004), a neopluralist perspective holds that groups representing a variety of interests will exist, contrary to Olson's collective action problem, but that the mobilization of these various groups will be challenging. Rather than characterize neopluarlism as a single, coherent theory, Lowery and Gray (2004) identified characteristics common to the "gaggle of models" using a neopluralist perspective, including: 1) attentiveness to a wide range of interest group types, including institutions; 2) research that examines competition between group types in each aspect of influence, as opposed to other perspectives which take narrow views of competition; 3) greater focus on variation, such as in group context or tactics, that informs theory; 4) an

awareness of the connections between the stages of influence; 5) an acknowledgement that the stages of influence are not unidirectional, but show feedback.

Niche Theory of Interest Representation

When Browne (1990) investigated interest group participation and interactions within agricultural policy in order to asses the implications for pluralist theory, he found that organized interests within the domain often had a narrow issue focus, they minimized issue based interaction, and they avoided commitment to coalitions. His findings suggested, "interest group politics is essentially about gaining elite status over a small range of issues" (p. 497). His explanation of the phenomena leaned on transactional theory; organizations and policymakers form relationships of exchange and organizations' activities are constrained by the transaction costs associated with those exchanges. An interest group defined by a narrow policy 'niche,' or activity focusing on only a few issues, and with identifiable political assets like recognition has relatively few transaction costs. Essentially, "organized interests define themselves in terms of carefully constructed issue niches," (p. 477) due to competition for attention and support from policy makers.

In the mid 1990's, Virginia Gray and David Lowery expanded upon the niche theory of interest representation by applying population ecology concepts to interest group communities. While Browne's conception of a niche only included "the external relationships between interest organization entrepreneurs and policymakers," (Gray & Lowery 1996, p. 92) Gray and Lowery conceptualized a *niche as the "multidimensional set of attributes of a population in relation to its environment"* (p. 93). A fundamental

niche refers to the space in which an organization is able to survive. Species, or in this case, interest organizations, can have overlapping fundamental niches. According to population ecology research, increased ecological similarity between species leads to a decreased likelihood of coexistence because of resource competition. Thus, species that share a fundamental niche engage in resource partitioning behavior, or competition, until one displaces the other and they occupy distinct realized niches. This is known as the competitive exclusion principle.

Resource partitioning behavior refers largely to the interactions and relationships between species within a fundamental niche. Specifically, resource partitioning behavior is exhibited through competition, but not conflict or cooperation, between species. *Thus, resource partitioning is the competitive behavior of a species to create a niche, which is created when the species occupies a distinct space, in reference to resource variables.* When applied to interest groups, the niche theory leads to the idea that "The particular identity that an organization establishes—its realized niche—will be specified through how partitioning occurs of critical dimensions of the fundamental niche shared with competitors" (Gray & Lowery 1996, p. 95).

What then are critical resources for the creation of a viable interest group niche? Researchers hypothesize that these *critical niche dimensions include: 1) members; 2) selective benefits in order to mobilize members; 3) finances or monetary resources; 4) access to policy making processes or policy engagement/activity); 5) existence of government action or proposed government action.* Members refer to the individuals who are potential or actual members of an organization. Selective benefits are conceptualized

as those benefits or services offered by an organization in order to attract and mobilize members. Finances refer to the availability of funds to maintain an organization. Policy engagement or activity is conceptualized as formal contact with federal officials and can encompass both scope or breadth of engagement as well as intensity of activity (Gray & Lowery 1996; Halpin & Thomas 2012). This conceptualization of policy engagement leaves out other common forms of interest group activity, such as public campaigns, generating evidence and advice, grassroots mobilization, and others (Jones 2011; Fiorina et al., 2004). In addition, this conceptualization potentially leaves out other stages within the policy-making process that do not require contact with federal officials, such as issue framing and rule-making. The narrow scope of this conceptualization, which is also used in this research, is acknowledged as a limitation and should be built upon by future research. Finally, the existence of real or proposed government action refers to the existence of government policy or policy proposals on relevant topics for interest groups. Interest groups partition themselves on one or more of these dimensions in order to create a realized niche.

Initial research regarding the dimensions of an interest group niche indicated that partitioning was more common for internal resources, such as members and finances, than for policy access (Gray & Lowery 1996). However, later research found evidence suggesting that the critical dimensions of a niche include "isolation from conflict over policy," which provides strong evidence in support of Browne's (1990) emphasis on policy access and control for niche creation. Adequate sources of internal revenue and

membership are also important niche dimensions and it has been suggested that member benefits may be a less important resource dimension (Gray & Lowery 1997).

The competitive exclusion principle that is so central to population ecology theory has interesting implications for interest group communities. First, the principle indicates that interest organizations, especially those that are in densely populated communities, will engage in resource partitioning in order to create niches that allow them to more effectively survive and influence policy (Gray & Lowery 1996). A study by Halpin and Thomas (2012) examining policy activity specialization found overwhelmingly that interest groups tend to have narrow policy foci; however, the authors examined the domain focus of groups rather than their issue focus within one or more domains. A 2012 study by Lowery, Gray, Kirkland, and Harden expanded upon the implications of the competitive exclusion principle by hypothesizing that specialized organizations have a competitive advantage over generalist organizations, making it difficult for generalist organizations to gather and retain members in a densely populated interest group system. In addition, the authors suggested that generalist organizations remaining in densely populated communities will limit their activities or specialize in those areas where they have a competitive advantage. The areas where these organizations realize a competitive advantage are likely to be those that apply to a wide range of their membership base.

Niche theory and the competitive exclusion principle's implications for generalist organizations is interesting when examining work that pre-empted Browne's (1990) niche research. Salisbury, Heinz, Laumann, and Nelson (1987) employed network theory to distinguish the structure of the interest group communities based on alliances and

competition in agriculture, energy, health and labor policy. Researchers determined community structure by interviewing organizational representatives about their interactions with other groups. Within agriculture, the researchers categorized interest organizations as farm peak organizations, commodity groups, trade associations, or externality groups. The researchers classified farm peak organizations as generalist groups of farmers and "their subsidiaries," commodity groups as representing producers of specific crops or commodities, trade associations as "organizations of corporations not directly involved in agriculture," (p. 1225) and externality groups as those concentrating on the effects of farm policy. They found: 1) that groups most often found their allies within their same organizational category; 2) that farm peak organizations more often identified other farm peak organizations as both competitors and allies; 3) that farm peak organizations were identified more often as adversaries by other organization types; 4) that commodity groups and trade organizations did not identify other trade associations or commodity groups as adversaries but often identified externality groups as adversaries; 5) that externality organizations were often identified as competitors by all organization types. Across all policy domains, the existence of dominant peak associations made domains more competitive. Additionally, groups with more narrow policy agendas avoided conflict and concentrated on cultivating support for their specific interests (Salisbury et al., 1987).

Other niche theory research within political science has analyzed the relationships between interest group density and the formation of new groups, including the assumption that interest group density can reach a maximum number of sustainable

groups in any given system (Chamberlain 2009). Others have focused on the relationship between interest group density and the mobilizing tactics of organizations, (Djupe & Conger 2012) and institutional dominance in communities of organized interests (Lowery & Gray 1998).

At least one social science discipline other than political science has also focused on the activities of interest groups as restricted or determined by resource competition—sociology. Resource dependence theory, which is rooted in organizational sociology, shows similarities with niche theory and the competitive exclusion principle (Lowery et al., 2012). However, sociologists, especially social movement scholars, generally emphasize a wider array of organizational resources than political scientists and include among them moral, cultural, and social-organizational resources that impact organizational activities (Andrews & Edwards 2004; Coley 2013; Burstein & Linton 2002).

For Gray and Lowery (1996), the theoretical power of the niche theory of interest representation is that it provides a connection between the two distinct lines of interest group research—group maintenance/mobilization processes and interest group influence on government. The theory connects and simultaneously examines interest organizations' internal and external activities. They also held that examining interest group niches can explain the structure of interest group communities; "[interest organizations] survive—or fail to survive—in a highly competitive market of representation. That competition likely influences all of what they do, from their mobilization efforts to their lobbying activities" (Lowery et al., 2012, p. 37).

Niche Theory and Agricultural Policy

Certain aspects of the agricultural policy domain, lead to the inference that the domain would encourage niche partitioning among interest groups. First, agricultural policy encompasses a large number of fragmented concerns (Browne 1990). For instance, the seminal piece of agricultural legislation in the United States, the 'farm bill,' includes an impressively wide range of issues including commodity policies, conservation, trade, agricultural research, rural development, nutrition, credit, forestry, horticulture, energy, crop insurance, and a number of miscellaneous programs (Johnson & Monke 2013). Interestingly, the scope of agricultural policy has not always been so wide; Bonnen, Browne and Schweikhardt (1996) offer a useful overview of the changes within agricultural policy making processes, including its widened scope. The high number of fragmented issues covered by agricultural policy would likely create natural niches for interest groups

Second, wide ranging concerns means that the agricultural domain is characterized by a similarly large number of actors concerned with one or a number of the various issues. These actors' guiding goals for agricultural policy are often conflicting (Outlaw, Richardson, & Klose 2011). In addition, the diverse number of actors and issues within the domain creates a high "expectation of conflict" (Browne 1990 p. 483). As Bonnen, Browne, and Schweikhardt (1996) explained, the increasingly large number of actors engaged in agricultural policy processes has contributed to more conflicts and threats of conflict consequently immobilizing the policy making process and creating the need for increased effort to satisfy the range of values involved.

The large number of actors in the agricultural policy domain and the high likelihood of conflict between them suggest that it would be beneficial for these actors to carve out distinct realized niches. This inference is generally supported by studies of density dependence and the competitive exclusion principle (Chamberlain 2009; Lowery et al., 2012). The niche theory of interest representation was supported by agricultural policy research in the late 1980's and early 1990's (Browne 1990; Salisbury et al., 1987).

However, some characteristics of the contemporary agricultural policy domain call into question whether and how niche partitioning occurs today. In the late years of the 20th century, federal agricultural policies became increasingly general, which amplified the importance and influence of generalist interest organizations covering a broad range of issues (Wilson 2005). Additionally, recent research on federal rural policy interests indicated that generalist farm organizations wield a great deal of influence within federal agricultural policy processes (Reimer 2013). These groups ostensibly are concerned with and engaged in a wide range of issues in agriculture, casting doubt on the idea that specialization and narrow issue niches are necessary for interest groups to survive and effectively influence policy.[1] However, Reimer's (2013) study focused on

[1] Whether general farm organizations actually create narrow policy foci and niches, as suggested by the competitive exclusion principle, is difficult to determine because of the limited attention to agriculture and interest groups in political science and rural sociology. Reimer's (2013) research is the only study examining agricultural interest groups since the late 1980's of which I am aware, other than a handful

rural rather than agricultural policy and does little to study the structure of the interest group system by examining patterns of engagement or the relationships between organizations.

Perhaps more importantly, agriculture in the United States has changed drastically since the late 1980's and early 1990's. Linda Lobao and Katherine Meyer (2001) wrote of the "great agricultural transition" of the 20th century, characterized by "the abandonment of farming as a household livelihood strategy," (p. 104) indicated by declining numbers of farms, a declining farm population, greater reliance on hired labor in agriculture, and growth in farm acreages, sales, and real estate capitalization, trends that continued in the final decades of the 20th century. Further, at the turn of the 21st century, Frederick Buttel (2003) claimed that additional "discontinuous social forces" within the U.S. agro-food system continue and exacerbate the transition outlined by Lobao and Meyer (2001). These forces include: 1) increasingly long-distance food supply chains; 2) global neoliberalization in agriculture; 3) increased structural differentiation of farms and agriculture; 4) concentration and industrialization in livestock production; 5) the importance of new technologies such as genetically modified organisms and information systems; 6) "the relocation of agrarian protest outside of mainstream

---

of studies by William P. Browne and colleagues in the 1980's, 1990's and 2001. (Browne, 1988; Browne 1990; Browne 1994; Browne 1995; Bonnen, Browne, and Schweikhardt 1996; Browne 2001) Because of the lack of research in recent years, little is known about the structure of interest group engagement in federal agricultural policy and its implications for theory and practice.

production agriculture" (p. 185); and 7) the environmentalization of agriculture or the fact that, "agriculture is becoming increasingly subject to environmental criteria and regulations" (p. 185). These developments have undoubtedly changed both agricultural policy and the goals and roles of interest groups within the domain, urging a contemporary look at the agricultural interest group community.

Addressing Limitations to Niche Theory

Some scholars within the neopluralist perspective have found varying support for the idea that interest groups will 'gravitate' toward federal policy issues where little competition creates an issue niche. For instance, when examining the policy activity of interest groups using a random sample of federal lobbying disclosure data, Baumgartner and Leech (2001) found evidence of both issue niches and policy bandwagons. Many issues were engaged by only a small number of organized interests a space with little or no competition, but other issues saw "a firestorm of lobbying activity" (p. 1205). In addition, a study of interest group involvement in federal judicial nominations by Caldeira, Hojnacki, and Wright (2000) found similar results. The existence of policy bandwagons, in which a large number of organizations are active, suggests if not an alternative to niche theory, at least a nuance in which interest groups may not always partition their policy activity to create issue niches or may act outside their niches when advantageous. Baumgartner and Leech (2001) and Caldeira, Hojnacki, and Wright (2000) present policy engagement by interest groups as dependent on factors other than the construction of a niche. As McFarland (2010) pointed out, some issues are engaged by a plurality of interests while one or a few specialized groups dominate others.

Further, the contemporary characteristics of agricultural policy call into question whether and how niche partitioning occurs in the domain. My research addresses the limitations with both niche theory and agricultural interest group research by examining the structure of the contemporary agricultural interest group community and by assessing the existence of niche partitioning behavior within that community. This examination will focus specifically on the policy engagement resource, which was emphasized by Browne (1990) and was found by Gray and Lowery (1997) to be a critical resource dimension. Addressing these limitations involves evaluating the contours of federal agriculture policy, including the issues and scope of contemporary agricultural policy and the interest groups engaging that policy.

The following are the specific questions that guided the research. R1 and R2 refer to the structure and characteristics of the agricultural interest group community, including policy engagement. R3 focuses on the niche creation behavior of individual organizations:

R1: What is the structure of interest group participation in federal agricultural policy?

- *How many groups make up the federal agricultural interest group community?*
- *What types of groups participate in the federal agricultural policy area?*
- *What is the pattern of their engagement in relation to one another?*

Of particular interest in the analysis aimed at addressing these questions were the policy engagement activities of generalist organizations due to the implications of the

competitive exclusion principle. While Wilson (2005) and Reimer's (2013) discussions indicated the importance of a small number of general farm organizations, when applied to interest groups, the competitive exclusion principle indicates that generalist organizations in a densely populated interest group system are likely to narrow their activities to only those issues where they possess a competitive advantage (Lowery, Gray, Kirkland, & Harden 2012).

R2: Is the federal agricultural policy domain characterized primarily by issue niches?

R3: Do the organizations that participate in the federal agricultural policy domain exhibit resource partitioning behavior regarding policy engagement?

Research by Bonnen, Browne and Schweikhardt (1996) indicates that the agricultural policy domain will be highly complex and densely populated due to the expanding range and scope of agricultural policy and shifts in Congressional rules that make it "more open and less hierarchical" (p. 130). Thus, regarding the structure of the agricultural interest group community, I hypothesized that,

H1a: The agricultural policy domain will be densely populated and complex.

Buttel (2003) explained that one of the major 'discontinuities' 21st century U.S. agriculture has been that agricultural reform and protest, including through the presentation and research of alternative policies, comes mostly from non-farm organizations. Perhaps this is also the case in lobbying agricultural legislation. An additional hypothesis regarding the structure of the agricultural interest group community was,

H1b: The majority of interest groups participating in the federal agricultural policy domain will be non-farm organizations.

While the niche theory of interest representation points toward the expectation that the agricultural domain would be characterized primarily by niches, previous research by Baumgartner and Leech (2001) has shown that some federal issues are often engaged by only a small number of organized interests, but others see "a firestorm of lobbying activity" (p. 1205). This finding aligns with the neopluralist idea that interest group engagement depends on the issue area; some issues are engaged in by a plurality of interest groups and others are dominated by one or a few specialized groups (McFarland 2010). The increasingly general nature of agricultural policy (Wilson 2005) and the wide-reaching nature of the 'farm bill' lead to the inference that some issues will be engaged by a large number of diverse interests. An additional hypothesis regarding community structure and R2 included,

H2: The pattern of agricultural policy engagement by interest groups will be such that issue niches and policy bandwagons exist.

According to Gray and Lowery's (1996) niche theory of interest representation, agricultural interest groups would benefit from undertaking niche partitioning behavior. Further, certain characteristics of the domain, particularly that it is expected to involve a large number of interests and that the expectation of conflict is high (Browne 1990), indicate that niche partitioning is likely in regards to policy engagement. But because of the expectation that both niches and bandwagons will exist, it is predicted that some

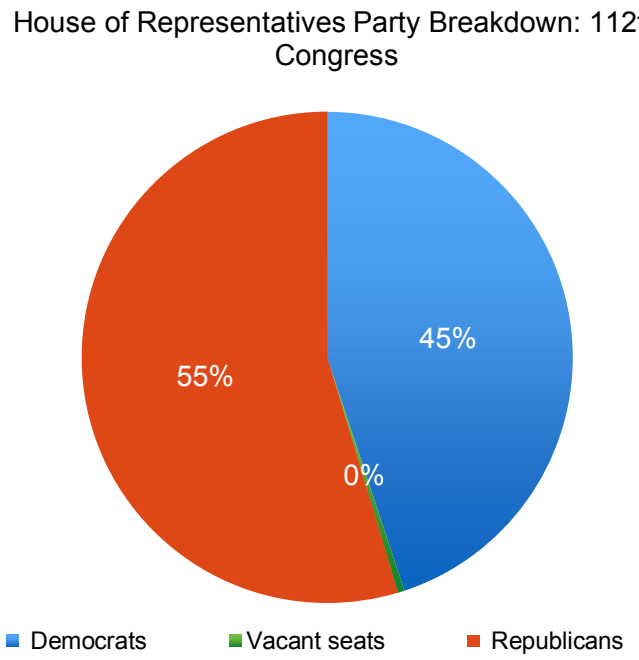
issues will encourage groups to act in a wider space. Thus, in reference to niche partitioning behavior it was expected that,

> *H3: Interest groups in agricultural policy will exhibit niche-partitioning behavior regarding policy engagement. However, certain issues will motivate groups to act outside their niches (e.g. policy bandwagons).*

Chapter 3: Characteristics of the 112th United States Congress, Its Agriculture Committees and U.S. Agriculture

112th United States Congress

"[P]aralyzed and dysfunctional." These were the terms that the *CQ Almanac 2011* used to describe the 112th Congress of the United States, expounding that, "Public confidence in the divided Congress reached a new low" (Austin 2012, para. 1). The political party divisions of each Congressional chamber are shown in Figure 1. Much attention during the first session of the congress focused on House Republicans, the new majority party in the chamber, and their efforts to repeal or thwart a number of legislative and regulatory efforts including healthcare reforms, environmental regulations and efforts to address climate change, financial services regulations, energy policies, and governmental spending. Congress spent the majority of the first session addressing financial issues, including a 2011 appropriations bill that passed mere minutes before the federal government would be forced to shut down many operations and raise the debt ceiling (Austin 2012). Because of these issues, during their first session, "Congress cleared only a few pieces of significant legislation, including a patent law overhaul, a defense authorization bill and three trade agreements" (Austin 2012, para. 9).



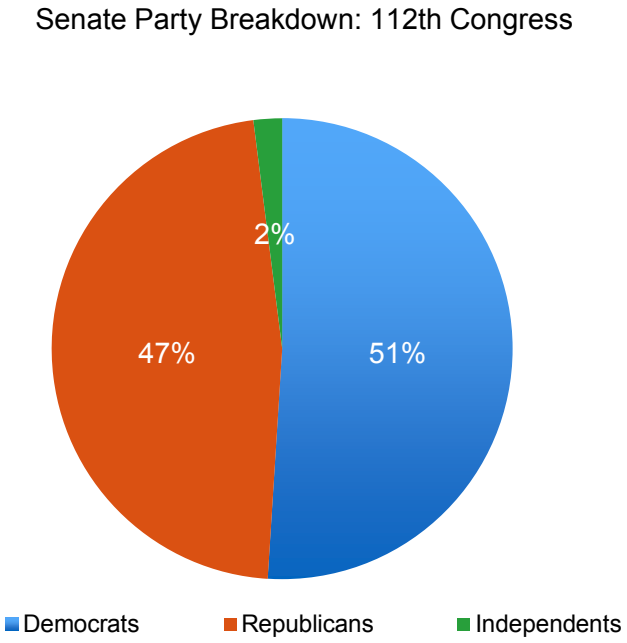


Figure 1. Major Parties in the 112th Congress. Data from Manning (2011).

The second session of the 112th Congress played out quite similarly to the first with, “both parties spending a great deal of their time in futile battles devoted to disparaging their opponents and positioning themselves for the November elections” ("Partisan Combat Prevailed in 112th, Fiscal Cliff Narrowly Avoided” 2013, para. 3). Again, attention was focused on House Republicans who struggled to reach united resolutions because of rifts between moderate and conservative party members. The hallmark moment of Congress’ second session came when the looming “fiscal cliff,” a combination of significant tax increases and broad spending cuts, was narrowly averted with a temporary sequester. Notable legislation passed in the second session addressed unemployment benefits for federal employees, reauthorization of the Federal Aviation Administration, surface transportation, student loan interest rates, user fees for the Food and Drug Administration, economic sanctions against Iran, financial disclosure for government officials, defense authorization, and foreign intelligence laws ("Partisan Combat Prevailed in 112th, Fiscal Cliff Narrowly Avoided” 2013).

Congressional Agriculture Committees

The Senate Committee on Agriculture, Nutrition and Forestry is responsible for a wide range of legislation, including any matters relating to agricultural economics, research, extension services, production, and marketing, as well as crop insurance, farm credit, food and nutrition programs, forestry, the animal industry, the plant industry, rural development, and domestic and international food, nutrition, and hunger issues. During the 112th Congress, the Senate committee was composed of 21 members and was chaired by Sen. Debbie Stabenow, D-MI; see Fig. 2 for a full list of members (“U.S. Senate.

Senate Committee on Agriculture, Nutrition, and Forestry."). In comparison, the House Agriculture Committee considers legislation related to agricultural economics, research, production, marketing, education, and price stabilization, as well as farm credit, crop insurance, commodity exchanges, entomology, forestry, the plant industry, inspection of livestock and seafood products, rural development, water conservation, and human nutrition. The House committee included 46 members during the 112th Congress and was chaired by Rep. Frank Lucas, R-OK; Fig. 2 also provides a full list of members ("U.S. House. House Committee on Agriculture.").

Senate

Majority Members

Debbie Stabenow, D-MI (Chair)
Patrick J. Leahy, D-VT
Tom Harkin, D-IA
Kent Conrad, D-ND
Max Baucus, D-MT
Benjamin Nelson, D-NE
Sherrod Brown, D-OH
Robert P. Casey, Jr., D-PA
Amy Klobuchar, D-MN
Michael F. Bennet, D-CO
Kirsten E. Gillibrand, D-NY

Minority Members

Pat Roberts, R-KS (Ranking)
Richard G. Lugar, R-IN
Thad Cochran, R-MS
Mitch McConnell, R-KY
Saxby Chambliss, R-GA
Michael O. Johanns, R-NE
John Boozman, R-AR
Charles Grassley, R-IA
John Thune, R-SD
John Hoeven, R-ND

House

Majority Members

Frank D. Lucas, R-OK (Chair)
Bob Goodlatee, R-VA
Timothy V. Johnson, R-IL
Steve Kind, R-IA
Randy Neugebauer, R-TX
K. Michael Conway, R-TX
Jeff Fortenberry, R-NE
Jean Schmidt, R-OH
Glenn Thompson, R-PA
Thomas J. Rooney, R-FL
Marlin A. Stutzman, R-IN
Bob Gibbs, R-OH
Austin Scott, R-GA
Scott R. Tipton, R-CO
Steve Southerland II, R-FL
Eric A. "Rick" Crawford, R-AR
Martha Roby, R-AL
Tim Huelskamp, R-KS
Scott Desjarlais, R-TN
Renee L. Ellmers, R-NC
Christopher P. Gibson, R-NY
Randy Hultgren, R-IL
Vicky Hartzler, R-MO
Robert T. Schilling, R-IL
Reid J. Ribble, R-WI
Kristi L. Noem, R-SD

Minority Members

Collin C. Peterson, D-MN (Ranking)
Tim Holden, D-PA
Mike McIntyre, D-NC
Leonard L. Boswell, D-IA
Joe Baca, D-CA
David Scott, D-GA
Henry E. Cuellar, D-TX
Jim Costa, D-CA
Tim Walz, D-MN
Kurt Schrader, D-OR
Larry Kissell, D-NC
William L. Owens, D-NY
Chellie M. Pingree, D-ME
Joe Courtney, D-CT
Peter Welch, D-VT
Marcia L. Fudge, D-OH
Gregorio C. Sablan, D-MP
Terri A. Sewell, D-AL
James P. McGovern, D-MA
John Garamendi, D-CA

Figure 2. 112th Congress Agriculture Committee Members.

Within Congress' agricultural committees, the 112th session was again notable because of work left undone. The reigning farm bill, "an omnibus, multi-year piece of authorizing legislation that governs an array of agricultural and food programs…[and] provides a predictable opportunity for policymakers to comprehensively and periodically address agricultural and food issues," (Johnson & Monke 2013, p. 1) was set to expire in 2012, but a reauthorized act was not signed into law until February 2014 (Chite 2014). The Food, Conservation, and Energy Act of 2008 (PL 110-246), was extended in two separate instances, once as a part of the "The American Taxpayer Relief Act of 2012," a measure to avoid the 'fiscal cliff.' The failure of Congress' agriculture committees to produce a farm bill prior to the expiration of the 2008 version was attributed to disagreements surrounding the Supplemental Nutrition Assistance Program (SNAP), disagreements within the House of Representatives, and the failure of the respective agriculture committee chairs, Sen. Stabenow and Rep. Lucas, to agree to compromises (Ferguson 2014; "Partisan Combat Prevailed in 112th, Fiscal Cliff Narrowly Avoided" 2013).

U.S. Agriculture (2011-2012)

While it would be impossible to completely outline all of the characteristics of American agriculture during the 2011-2012 period, a few highlights will help provide context for this research, especially for the issues dominating policy processes during the period.

2011 was a prosperous year for U.S. agriculture; commodity prices, land values, net farm income, and the agricultural trade surplus all reached record or near record

highs. Crop sales in the U.S. were predicted to be greater than $200 billion for the first time ever, while livestock sales saw increased estimated sales of $165 billion. However, some of the records broken in 2011 were not so advantageous to the agriculture sector; weather disasters, including tornadoes, droughts, and floods, wreaked havoc across the country ("2011: The Year in Review" 2011).

The drought conditions that plagued many places across the U.S. in 2011 worsened the following year. In 2012, almost 80% of agricultural land across the country experienced drought conditions, forcing the production of many crops to fall, according to the USDA National Agricultural Statistics Service (Wenzlau & Reynolds 2012; "Crop Production Down in 2012 Due to Drought, USDA Reports" 2013). In addition, prominent dialogue about a number of other important topics in food and agriculture continued throughout 2011 and 2012, including: 1) questions about the benefits of organic food; 2) commitments to sustainable agricultural production; 3) the increasingly important role of local food movements/food sovereignty; 4) the need for agricultural research and innovation; 5) the role of agribusiness in the food and agriculture system; 6) the safety of genetically modified foods, including state labeling initiatives; 7) ethanol's role as an alternative to foreign oil dependence; 8) renewable energy sources; and 9) the farm bill (Wenzlau & Reynolds 2012; "2011: The Year in Review" 2011).

Chapter 4: Methods

In order to examine the research questions outlined, interest groups' agricultural policy engagement, via lobbying agricultural legislation, was studied at the community level. This information was supplemented, and organizational behavior was examined more closely, at the organizational level.

The community level analysis focused on examining the number and types of groups engaged in agricultural policy, the distribution of their policy engagement, the pattern of their policy engagement in relation to one another, and the creation of policy engagement niches. Secondary data was gathered for this analysis and was analyzed using descriptive statistics, cluster analysis and qualitative coding. The organizational level analysis used primary data gathered from interviews with representatives of interest groups to examine organizational behavior. Interview responses supplemented and expanded upon results from the community level analysis. It should be recognized that the conceptualization of policy engagement used here examines only one form of interest group activity and a single stage in the policy-making process, which created a manageable scope for this single research project. The limitation is recognized and future research should build on the concept.

First, all federal agricultural legislation during the 112th Congress, January 5, 2011- January 3, 2013, ("110th to Current Congresses (2007 to Present)" n.d.) was identified using the Library of Congress's THOMAS database. A database of any legislation during the 112th Congress that was referred at any point to either the House Committee on Agriculture or the Senate Committee on Agriculture, Nutrition, and Forestry was compiled. Because "agricultural policy" is a broad term that can refer to "the principles that guide government programs that influence production, the resources utilized in production, domestic and international markets for commodities and food products, food consumption and nutrition, food safety, and the conditions under which people live in rural America," (Knutson, Penn, Flinchbaugh & Outlaw 2007, p. 1), it was assumed that any legislation that met these conditions would be referred to either agriculture committee. The limitations of this assumption are addressed later.

Next, the interest organizations that engaged with any piece of agricultural legislation during the 112th Congress were compiled using lobbying disclosure data filed with the federal government under the Lobbying Disclosure Act of 1995 and the Honest Leadership and Open Government Act of 2007 (Maskell 2007).[2] Engagement was operationalized as the existence of formal disclosure indicating lobbying activity on a

[2] In some instances, lobbying was indicated to have occurred on these pieces of legislation into 2013. These activities were not considered in this analysis, as they were more than likely taking place in the 113th rather than the 112th Congress, which only lasted until January 3, 2013.

piece of legislation. The limitations of this conceptualization are recognized and discussed in the concluding sections. Lobbying disclosure data is available from the Office of the Clerk of the U.S. House of Representatives and is aggregated by The Center for Responsive Politics. In this case, data was gathered from The Center for Responsive Politics. Disclosure data provides a measure of observed engagement and is likely to be more accurate than self-reported engagement data gathered using surveys, a benefit that has been recognized by other interest group researchers (Halpin & Thomas 2012). The compiled database included each organization and records of their lobbying, including the bills on which they lobbied and the intensity of that lobbying activity, or the number of times they reported lobbying each piece of legislation. An *n x p* matrix of lobbying data where *n* was organizations, represented by all organizations that reported lobbying any piece of federal agricultural legislation, and *p* was federal agriculture legislation that was lobbied by at least one organization was constructed. Each piece of legislation represented a separate variable and engagement was measured at the interval level. Organizations were given a score of 0 if they did not report lobbying a bill; if they did report lobbying a piece of legislation, the number of times they reported that legislation in lobbying disclosure was recorded. Lobbying patterns and intensity were captured using these variables. Because all variables were measured in the same manner at an interval level, they were not standardized or weighted prior to running cluster algorithms.

Cluster Analysis

The lobbying behavior of agricultural interest organizations was analyzed, using the exploratory, quantitative approach of cluster analysis. The primary goals of this analysis

were to examine the pattern of lobbying by each interest organization and to assess whether organizations created unique patterns of engagement, ostensibly a necessity for creating a policy niche. Because the "primary reason for the use of cluster analysis is to find groups of similar entities in a sample of data," it was chosen as the appropriate quantitative method for this research (Aldenderfer & Blashfield 1984, p. 33). Specifically,

> a clustering method is a multivariate statistical procedure that starts with a data set containing information about a sample of entities and attempts to reorganize these entities into relatively homogenous groups. (Aldenderfer & Blashfield 1984, p. 7)

According to Aldenderfer and Blashfield (1984), there are seven major families of cluster analysis, including hierarchical agglomerative, hierarchical divisive, iterative partitioning, density search, factor analytic, clumping, and graph theoretic. Kaufman and Rousseeuw (1990) classified clustering methods into two major categories--- hierarchical methods and partitioning methods. Hierarchical methods construct a hierarchy of all cluster solutions from 1 to k or k to 1, where k is the number of cases being analyzed, by combining cases based on their similarity using a statistical measure of similarity or dissimilarity. In other words, hierarchical methods "deal with all values of k in the same run" (Kaufman & Rousseeuw 1990, p. 44). When using partitioning methods, the researcher predetermines the number of clusters to be formed. The algorithm is iteratively run until the 'best' solution of clusters is created (Kaufman & Rousseeuw 1990).

When choosing the appropriate clustering method, a few issues need to be considered. First, iterative partitioning methods require researchers to input the number of clusters in the final solution prior to analysis. In exploratory research such as this, this requirement becomes problematic. In contrast, hierarchical methods construct a hierarchy of all cluster solutions from 1 to *k* or *k* to 1, depending on whether the analysis is divisive or agglomerative. The analysis produces a graphic representation of solutions, a dendrogram, which the researcher can use to choose the most appropriate cluster solution. In addition, a number of index measures exist to help researchers determine the most appropriate cluster solution. However, hierarchical cluster analysis is quite rigid; once cases are placed into clusters, they cannot be removed, meaning that solutions may be dependent on the ordering of cases in the data set (Kaufman & Rousseeuw 1990).

In order to address each of these challenges when clustering interest organizations according to their agricultural lobbying patterns, an agglomerative hierarchical algorithm, Ward's method, was completed. Based on the output of that hierarchical cluster analysis, an iterative partitioning analysis known as kmeans analysis was subsequently run.

Hierarchical cluster analysis was completed using R, while kmeans analysis was completed using SPSS.[3] Tests of validity and reliability were performed, which are discussed further below.

Hierarchical Cluster Analysis: Ward's method. Ward's method is one of a number of algorithms that can be used for hierarchical cluster analysis. Some other common algorithms include between-groups linkage, average linkage, single linkage, complete linkage, centroid clustering, and median clustering. Ward's method was used in this research because it uses information from all observations, whereas other methods use information from only some of the observations. In addition, Ward's method is a common algorithm in the social sciences (Aldenderfer & Blashfield 1984). [4]

Ward's method "optimizes minimum variance within clusters," by adding cases to clusters so that the result is the minimum increase in the error sum of squares (ESS) in the cluster. ESS is calculated using Formula 1, where x_i is the value of the i^{th} case. ESS is equal to 0 when the number of clusters is equal to the number of cases, which occurs at the first stage of analysis in an agglomerative method as used in this research (Aldenderfer & Blashfield 1984, p. 43).

---

[3] Some researchers have voiced concern with the validity of kmeans solutions in SPSS because the algorithm automatically chooses the first *k* cases as cluster centers, rather than choosing them randomly. In order to avoid issues this could create, analyses were run on data ordered both alphabetically and randomly and results were compared.

[4] Ward's method was also recommended by a methodologist whose work focuses on finding groups in data.

$$ESS = x_i^2 - 1/n(\Sigma x_i)^2 \qquad \textit{(Formula 1)}$$

The outcome of the analysis, a dendrogram, is a graphical representation of the clustering solution. The horizontal lines of the graph indicate at what point cases were joined to form clusters; large distances between these points indicate greater dissimilarity. Thus, the number of cases appropriate for a cluster solution is judged by choosing the point at which a large jump in similarity indicates the joining of dissimilar clusters (Norusis 2008).

Kmeans. The algorithm used by the iterative partitioning method, kmeans analysis, differs from that used by hierarchical methods. Generally, iterative partitioning methods begin with an initial partition of the data into *k* clusters and the centroids of those clusters are calculated. Initial centroids are based on the "multivariate mean of the cases within a cluster" (Aldenderfer & Blashfield 1984, p. 46). Each observation is then placed in the cluster with the 'nearest' centroid. In kmeans analysis, nearness is determined using the dissimilarity measure of Euclidean distance, which is a measure of the geometrical distance between two points in space shown in Formula 2.

$$d(i, j) = \sqrt{(x_{i1} - x_{j1})^2 + (x_{i2} - x_{j2})^2 + \ldots + (x_{ip} - x_{jp})^2} \qquad \textit{(Formula 2)}$$

When new observations are added to the cluster, the new centroid of the cluster is computed and the process is repeated until the optimal cluster solution has been reached,

which occurs when the clusters no longer change. Similar to Ward's method in hierarchical analysis, kmeans analysis minimizes the variance with clusters (Aldenderfer & Blashfield 1984).

The output of kmeans analysis includes the cluster membership of each case, including their Euclidean distance from the cluster center, as well as the final cluster centers of each cluster among other measures that are not vital to this research. Cluster centers are computed as the mean for each variable within each final cluster and they reflect the characteristics of the typical case for each cluster (Norusis 2008).

Assessing Validity and Reliability of Cluster Analysis. Charrad, Ghazzali, Boiteau, and Niknafs (2014) indicated three basic approaches to assessing the validity of cluster analyses. First, clustering results can be compared to external information about the data. For instance, additional variable information about cases in order to compare and validate original cluster results (Aldenderfer & Blashfield 1984). Because collection of reliable and related external variables regarding lobbying behavior for this project would be exceedingly difficult, this technique was not used. Rather, the cluster solutions were assessed for their logical coherence compared to what was known about organizations based on coding processes, which can also be considered an external check for the validity of cluster solutions.

Charrad et al., (2008) also pointed to internal validation measures to assess cluster analysis results. Researchers can "use information obtained from within the clustering process to evaluate how well the results of cluster analysis fit the data…" (Charrad et al., 2008, p. 2). Replication is one such method of internal validation in which researchers

compare cluster outcomes across multiple clustering methods. Outcomes should be stable across analyses (Aldenderfer & Blashfield 1984).

Using a third basic approach involves statistical indices that have been developed to evaluate cluster analysis outcomes, including evaluating the most appropriate number of clusters in a data set—30 of these indices are included in an R package for evaluating cluster methodology, NbClust (Charrad et al., 2008). Milligan and Cooper (1985) used a Monte Carlo evaluation method to determine the effectiveness of these indices as "stopping measures." The researchers found that the five best performing indices for determining the number of clusters in a data set included the Calinski and Harabasz index (CH index), the Duda and Hart index Je2/Je1 (Duda index), C-index, Gamma and Beale.[5] Each of the indices considers intra-cluster compactness and inter-cluster isolation in determining the optimal number of clusters, among other characteristics. Readers should consult Milligan and Cooper (1985), Charrad et al., (2014), Lui, Li, Xiong, Goa, and Wu, (2010), and Aldenderfer and Blashfield (1984) for further discussion of cluster analysis and validation techniques, including the methods of computing indices, which is beyond the scope of this discussion.

[5] Gamma was not computed for the analysis because of its rather heavy computational load. After 6+ hours of computation, the statistic still had not been converged, so the operation was aborted.

For the current project hierarchical cluster analysis was completed using the *n x p* data matrix ordered alphabetically by cases and then again with the cases ordered randomly. HCA results were analyzed to determine the most appropriate number of clusters according to the dendrogram. In addition, the CH index, Duda index, C-index, and Beale index were calculated in R for HCA using Ward's method and Euclidean distance. Indices and HCA results were compared in order to determine the optimal cluster solution. Subsequently, the data was then clustered using kmeans methods according the appropriate value of k indicated by HCA outcome and cluster indices. Again, kmeans analysis was completed with the data ordered alphabetically by case and again ordered randomly. Each solution was evaluated for logical coherence and an optimal solution was chosen accordingly. Further discussion of these methods and details of the outcomes appears in the analysis and results section.

Multidimensional Scaling

In order to quantitatively assess the dissimilarity among clusters in the final cluster solution, multidimensional scaling (MDS) was used to plot the clusters according to their final cluster centers. According to Borg and Groenen (2005),

> Multidimensional scaling (MDS) is a method that represents measurements of similarity (or dissimilarity) among pairs of objects as distances between points of a low-dimensional multidimensional space…in order to make these data accessible to visual inspection and exploration. (p. 3)

In this instance, the Euclidean distances between the final cluster centers, an output of the kmeans analysis, were used as dissimilarity measures. Clusters were plotted in relation to one another as a visual representation of their (dis) similarity. Objects that appear closer in the plot are more similar. MDS plots were created using the SPSS multidimensional scaling (PROXSCAL) command and appear in the analysis and results section.

Analysis using a subsample: "Mover" bills.

As a method to ensure the reliability and validity of this research, specifically the coding that will be discussed, two policy content experts were consulted regarding coding schemes and general analytic methods. After review and discussion of the research, one policy expert indicated that some pieces of legislation may not be introduced with the intent to become law, but rather to send a message. The expert indicated that some bills could be considered "movers" and others as "markers." A "marker" bill refers to a piece of legislation introduced primarily to send a message rather than be pushed forward t become public law. In comparison, a "mover" bill is one that is introduced with intent to move through the legislative process to become law. While not a perfect measure of whether a bill could be considered a mover or a marker, the expert suggested that often committee chairs or ranking members introduce bills that are meant to 'move' or to eventually become law; it was suggested that a more focused analysis be undertaken using these criteria. Thus, lobbying data for only pieces of agricultural legislation, using the same definition outlined previously, from the 112th Congress that were introduced by a chair person or ranking member of any House or Senate committee were was gathered.

Committee chairs and ranking members were determined using the Congressional roll records on the Library of Congress THOMAS database. Descriptive statistics for this subsample were compiled and the data was analyzed using both hierarchical cluster analysis and kmeans cluster analysis according to the methods outlined previously. The results of the subsample analysis were compared to results of the full analysis.

Coding

In order to fully address questions regarding the structure of the agricultural interest group community, specifically regarding what types of groups are engaged in the domain, the organizations that lobbied federal agricultural legislation were coded according to their substantive domain focus and organizational scope. Organizational information for all interest groups were obtained from the organization's explanation of their mission or focus and their structure (e.g. the "About" or some other appropriate section on their website). In some instances, this focus was not available directly from the organization and was gathered using a reputable alternative site. Organizations were found via a basic Google search of the name listed in lobbying data from the Center for Responsive Politics.[6]

---

[6]Lobbying disclosures do not always list details about the organization such as their address, specifically if they hired a firm to lobby on their behalf. In cases where the organization was not easily found via Google search or where there was a likely chance that multiple organizations may be confused, the disclosure forms were cross-referenced.

Coding was completed using the organizational coding scheme that can be found in Appendix A, which was developed based on Reimer's (2013) study of rural interest organizations and the titles of the 2014 Agricultural Act. Alterations were made to the initial coding scheme based on the suggestions of agricultural policy content experts as well as through an inductive process during coding, which is detailed in Appendix A footnotes.

Additionally, all pieces of agricultural legislation that were lobbied by interest organizations were coded according to their substantive domain focus in order to illustrate the scope of agricultural policy during the 112th Congress. The typology of domains was the same that was used for organizations in Reimer's (2013) study of rural interest groups and can also be found in Appendix A. The domain focus of legislation was ascertained using the bill title and summary available through the Library of Congress THOMAS database.

Two outside content experts who have extensive experience with agricultural policy checked the reliability and validity of these codes. These experts were individuals with multiple years of professional experience in federal agricultural policy making and/or implementation. They were approached because of their in depth knowledge of and first-hand experience in the agricultural policy domain including familiarity with the organizations engaged in the space, agricultural issues and policies, and the policy-making and implementation process. The initial organizational and legislative coding schemes were sent to the experts, along with a sample of 100 organizations and the codes they were assigned as well as the codes assigned to a sample of 235 pieces of legislation.

Experts were asked to evaluate the coding schemes and the codes that groups and legislation had been assigned in order to indicate any issues with the methodology. One expert made a few suggestions regarding the coding scheme for organizations including: 1) splitting the environmental domain into an environment and a conservation domain because the federal policy arena includes a constituency of groups focused on regulatory environmental issues and another distinct base focused on voluntary conservation. However, during coding these two categories proved difficult to delineate based on an organization's mission—the difference between the two groups is arguably more focused on organizational strategy rather than mission. Thus, environment and conservation were recombined into a single, mission-based domain; 2) splitting the food domain into a food domain focused on food safety and food processing and a nutrition domain focused on food assistance, nutrition programs and related topics. This change was made; 3) including certain farm related programs such as crop insurance, farm credit, disaster relief, and agricultural credit, in the farm domain rather than the finance domain. This change was made; 4) considering domains as not necessarily mutually exclusive because groups may work across domains, especially generalist organizations. However, determining the multiple domains in which a group works would have required knowing extensive details of the organizations' policy activities. Thus, it was determined that choosing the domain in which the group *focused* most heavily based on their mission or similar information was sufficient to ascertain the general pattern of the types of groups working in the federal agricultural policy area. While the reviewers did not specifically point out any issues with legislative codes, some of the same concerns expressed

regarding organizational codes were addressed in the legislative coding scheme. Specifically, 1) certain farm related programs such as crop insurance, farm credit, disaster relief, and agricultural credit, were included in the farm domain rather than the finance domain; 2) the food/nutrition domain was split into a food domain focused on food safety and food processing and a nutrition domain focused on food assistance, nutrition programs and related topics. Other changes in the organizational coding scheme did not necessarily apply to the legislative coding scheme and were not applied.

Organizational Interviews

In order to fully examine niche partitioning behavior in policy engagement and to supplement the information gathered based on lobbying data, interviews with organizational representatives examined the existence and extent of resource partitioning behavior at the organizational level. Interviews examined the relationships between organizations and the agricultural policy setting with the goal of assessing niche-partitioning behavior.

Specifically, interviews were used to determine whether a relationship of conflict, alliance/cooperation, or competition exists between an organization and the other interest groups. A relationship of competition indicates niche partitioning while a relationship of conflict or cooperation indicates an absence of partitioning/interaction (Gray & Lowery 1996). Please see the literature review section for details on this relationship and its implications for niche partitioning. While the focus of this research is on policy engagement, interviews took a broader view of organizations and considered multiple variables that were identified by Gray and Lowery (1996) as vital for the creation of a

viable niche, including finances, members, member benefits and policy engagement, in order to provide initial information regarding other resource domains. Interviews followed the schedule in Appendix B, which was derived from the instrument constructed by Gray and Lowery (1996) to examine the existence of niche partitioning in state level interest organizations.

The organizations of interviewees were chosen purposively based on the output of the coding analysis. Twelve organizations of multiple types were approached for interviews, including generalist, commodity, and single issue organizations focusing in agriculture, rural issues, finance, and environment, in order to gain a variety of organizational perspectives. Interviewees were recruited via email and telephone using publicly available contact information and were chosen because of their involvement in the policy or governmental relations activities of their organization. Four interviews were completed with representatives of generalist and commodity agriculture organizations. The limitations of this small sample are recognized and discussed in the "Conclusion" section.

Prior to completing these interview sessions, the interview schedule was assessed for ease of understanding using pilot interviews with four representatives of organizations dealing with agricultural issues at the state level. Again, these representatives were recruited via email and telephone using publicly available contact information. Interviewees worked with the policy or governmental relations activities of organizations. Pilot organizations did not necessarily lobby federal agricultural legislation or appear in

the data set of lobbying activity compiled, so the information from these interviews was not used in the final analysis.

Interview responses were examined for patterns of responses, specifically reviewed were response frequencies for the closed-ended response questions and information from open-ended responses that supplemented the cluster analysis with supporting or contradictory information. Also, responses were analyzed for evidence or contradictions of niche partitioning behavior. According to Gray and Lowery (1996), "Evidence of partitioning, according to ecological theory, would indicate a state of severe competition over a vital resource dimension" (p. 99). Partitioning behavior would be evidenced by domination by key legislators, jurisdiction in one or a few committees, rare conflict over goals among organizations, and a structure of debate that allows avoidance of opponents within the domain (Gray & Lowery 1996).

Chapter 5: Results

Agricultural Legislation During the 112th Congress.

Three-hundred and fifteen pieces of legislation were referred to either the House Committee on Agriculture or the Senate Committee on Agriculture, Nutrition, and Forestry during the 112th Congress. Of those 315 pieces of legislation, 256 were lobbied by one or more organizations. This legislation will be referred to subsequently as 'agricultural legislation.' The majority of agricultural legislation, over 55%, was lobbied by 2-4 organizations as shown in Table 1. The median number of organizations lobbying each piece of legislation was four, while the average number of organizations lobbying each bill was 12.75 organizations. The major difference between the median and average indicates a positive skew in the distribution of organizational engagement with legislation; a sizable number of bills, representing approximately 13% of all bills lobbied, had over 20 organizations engaged.

Approximately 45 pieces of agricultural legislation during the 112th Congress were considered "mover bills," because a committee chairperson or ranking member introduced them. Of those 45 pieces of legislation, 39 were lobbied by one or more organizations. As indicated by the descriptive statistics in Table 2, the majority of mover

bills were lobbied by 2-4 organizations, while the median number of organizations registered to lobby mover bills was six.

	Number of bills
1 organization lobbying	54
2-4 organizations lobbying	90
5-7 organizations lobbying	42
8-10 organizations lobbying	20
11-13 organizations lobbying	9
14-16 organizations lobbying	4
17-19 organizations lobbying	4
20+ organizations lobbying	33
Average number of organizations lobbying each bill	13.004
Median number of organizations lobbying each bill	4
Maximum number of organizations lobbying any bill	517

Table 1. Lobbying Activity on Federal Agricultural Legislation.

	Number of bills
1 organization lobbying	5
2-4 organizations lobbying	12
5-7 organizations lobbying	7
8-10 organizations lobbying	2
11-13 organizations lobbying	2
14-16 organizations lobbying	0
17-19 organizations lobbying	2
20+ organizations lobbying	9
Average number of organizations lobbying each bill	41.154
Median number of organizations lobbying each bill	6
Maximum number of organizations lobbying any bill	517

Table 2. Lobbying Activity on 'Mover' Federal Agricultural Legislation.

Coding of all legislation referred to either the House Agriculture Committee or the Senate Committee on Agriculture, Nutrition, and Forestry during the 112th Congress indicated that the focus of agricultural legislation during the period was on farm and

environmental issues. Approximately 51% of all legislation focused on these two issues areas. The chart in Figure 3 shows a breakdown of the domains on which agricultural legislation focused.

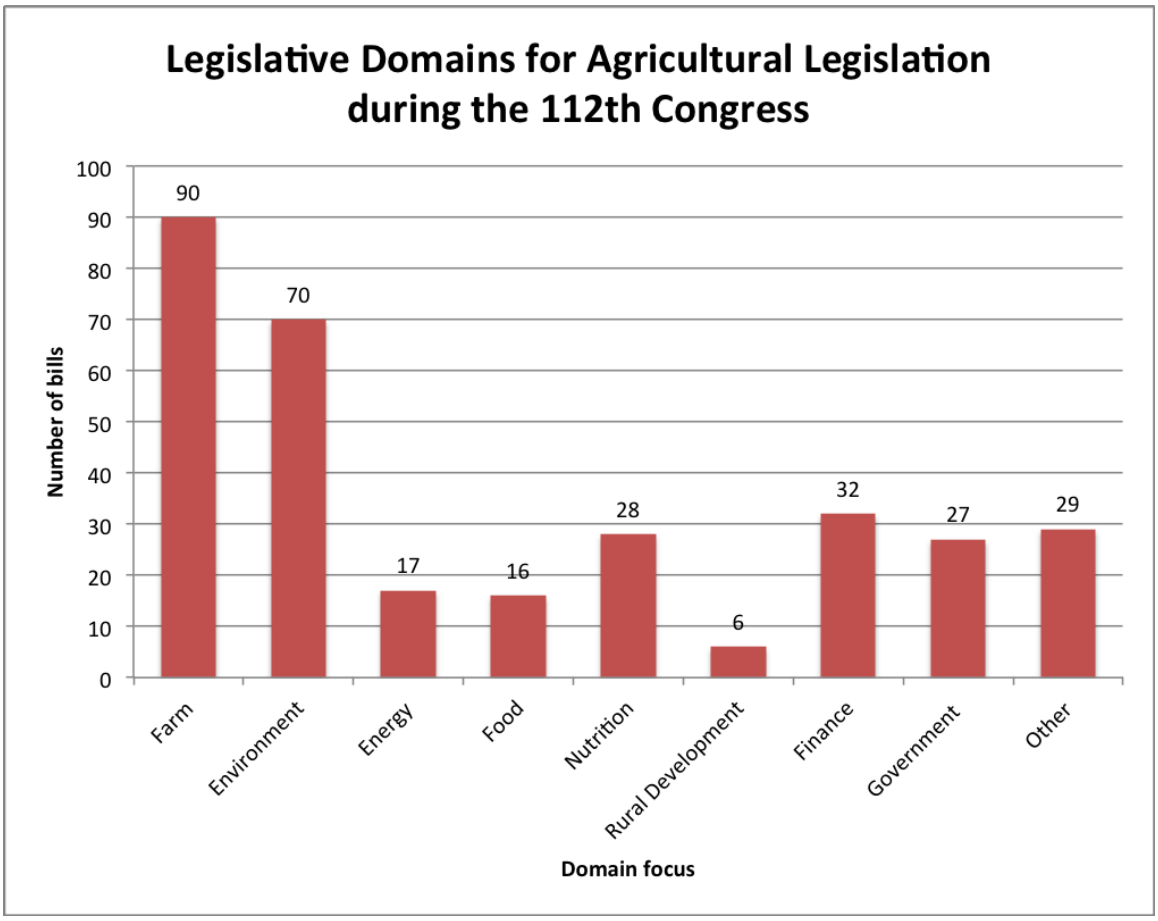


Figure 3. Legislative Domains for Agricultural Legislation During the 112th Congress.

Coding of 'mover' agricultural legislation during the period indicated that this legislation was even more focused on farm issues; approximately 44% of legislation dealt with farm issues. Again, the majority of 'mover' legislation, approximately 66%, focused

on either farm or environmental issues. The chart in Figure 4 shows a breakdown of the domains on which ‘mover’ agricultural legislation focused.

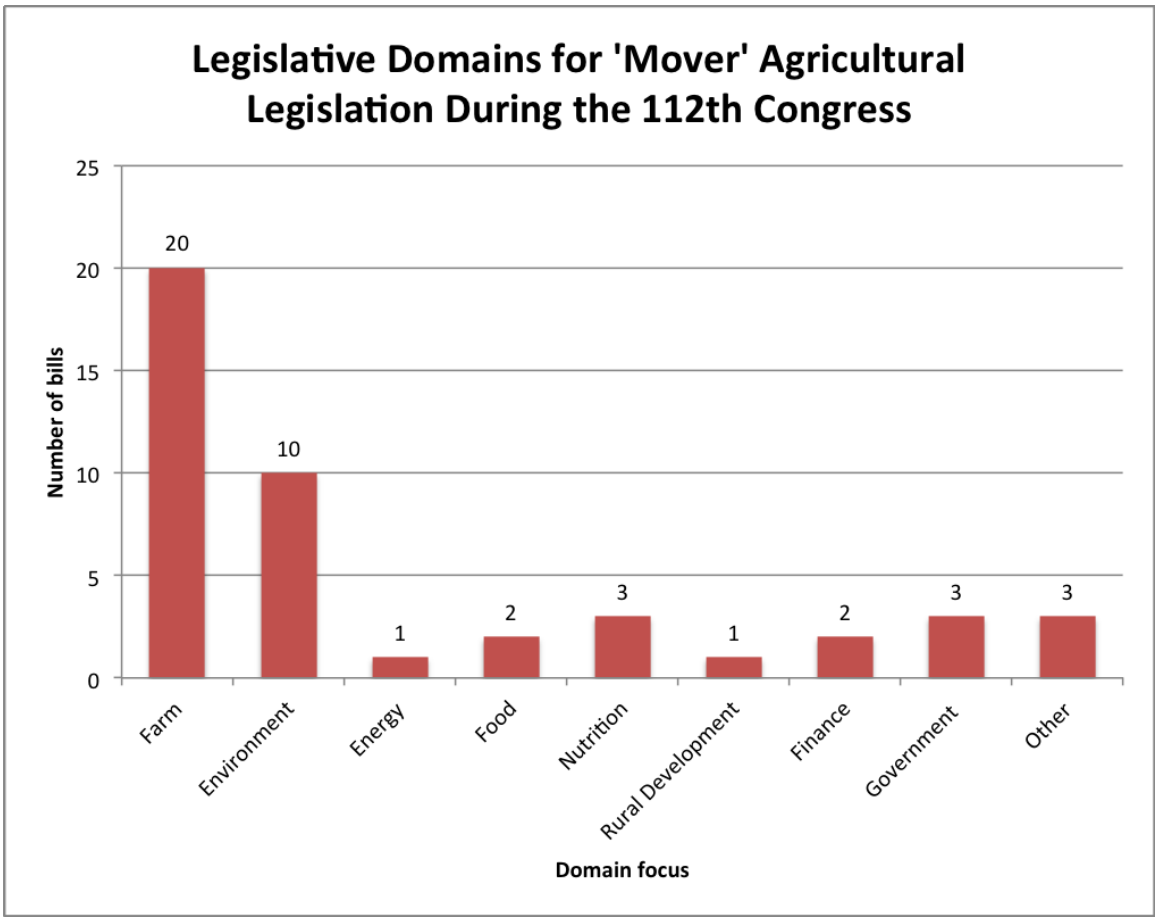


Figure 4. Legislative Domains for 'Mover' Agricultural Legislation During the 112th Congress.

What is the structure of interest group participation in federal agricultural policy?

Participating Interests. A total of 1,235[7] organizations lobbied one or more pieces of agricultural legislation during the 112th Congress. Table 3 details the descriptive statistics for the lobbying activity of organizations. The vast majority of the 1,235 organizations lobbied between 1 and 3 pieces of legislation. The median number of bills lobbied was two, while the average number of bills lobbied by each organization was 2.68. Again, the difference between the median and average indicates a positive skew in the distribution of engagement by organizations because five organizations lobbied 20 or more bills.

	Number of organizations
1 bill lobbied	616
2-3 bills lobbied	379
4-5 bills lobbied	104
6-7 bills lobbied	53
8-9 bills lobbied	28
10-15 bills lobbied	46
16-19 bills lobbied	5
20+ bills lobbied	5
Average number of bills lobbied by each organization	2.685
Median number of bills lobbied by each organization	1
Maximum number of bills lobbied by an organization	68

Table 3. Lobbying Activity of Organizations Engaging Federal Agricultural Legislation.

[7] Note that 1236 organizations appear in matrix tables, but one of those entries is a listed coalition of two organizations already in the data set.

A total of 954 organizations lobbied one or more of the "mover" pieces of agricultural legislation during the 112th Congress. Table 4 details the descriptive statistics for the lobbying activities of organizations that lobbied 'mover' legislation. Over 60% of these organizations lobbied only one piece of "mover" legislation, while the median number of bills lobbied was one. Tables 4 details descriptive statistics for the "mover" subsample of agricultural legislation.

	Number of organizations
1 mover bill lobbied	588
2-3 mover bills lobbied	302
4-5 mover bills lobbied	49
6-7 mover bills lobbied	13
8-9 mover bills lobbied	0
10-15 mover bills lobbied	1
16-19 mover bills lobbied	1
20+ mover bills lobbied	0
Average number of bills lobbied by each organization	1.681
Median number of bills lobbied by each organization	1
Maximum number of bills lobbied by an organization	19

Table 4. Lobbying Activity of Organizations Engaging 'Mover' Federal Agricultural Legislation.

When examining all of the organizations that lobbied agricultural legislation during the 112th Congress, coding indicated that the largest percentage of organizations fell in the "Nutrition/Health" domain; approximately 17% of the organizations were categorized as nutrition or health focused. Many of these organizations were focused on general health, such as hospitals and pharmaceutical companies, rather than hunger alleviation, obesity, or food insecurity specifically. The next largest categories of organizational domains were farm, finance and business, and energy, representing 12%,

11% and 10% of organizations respectively. The chart in Figure 5 shows a detailed breakdown of the domains of organizations that lobbied agricultural legislation.

The domains of organizations that lobbied mover bills were also examined to determine if different types of organizations focused their lobbying efforts on legislation that was expected to become law.

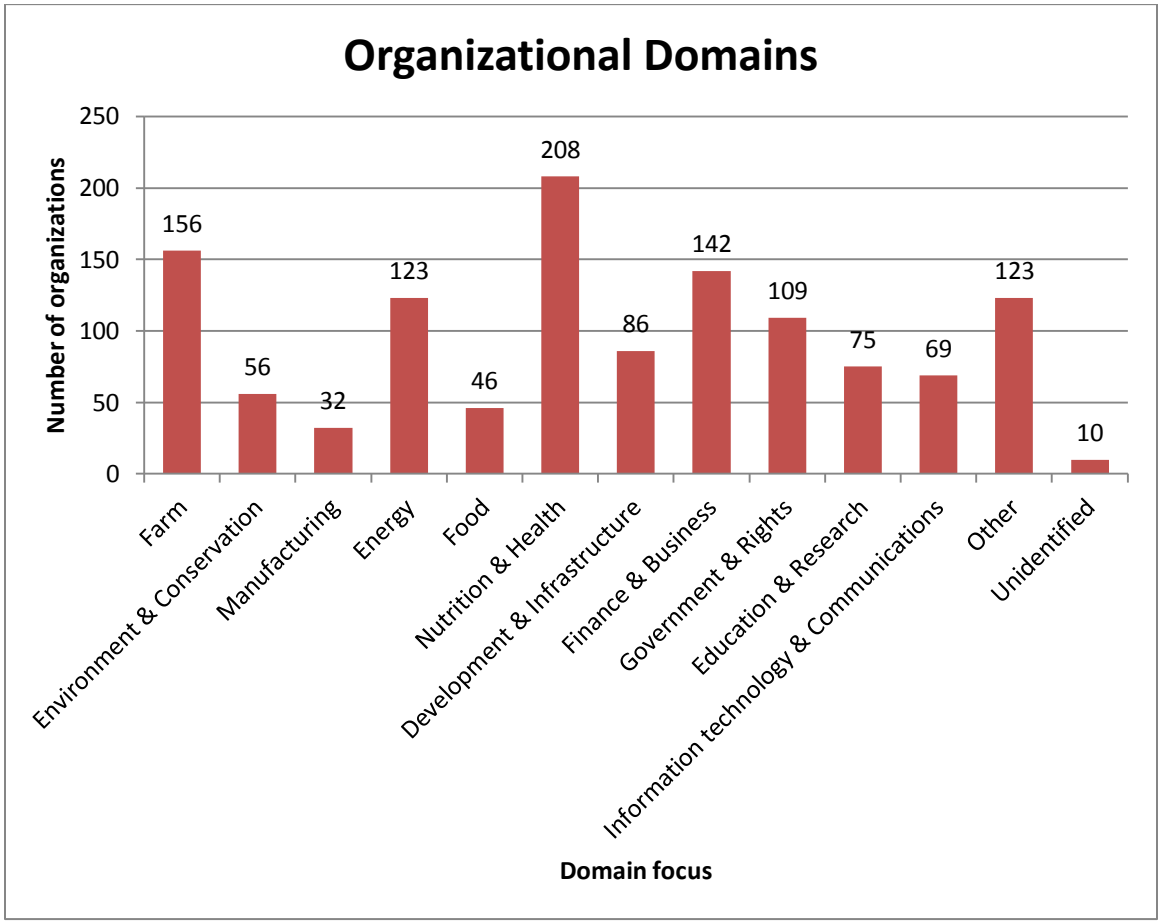


Figure 5. Domain Focus of Organizations Lobbying Federal Agricultural Legislation.

Figure 6 shows the breakdown of the domains where organizations that engaged 'mover' legislation focused. A comparison of the two graphs indicates that generally the domain focus of organizations engaging 'mover' legislation was the same as the overall community.

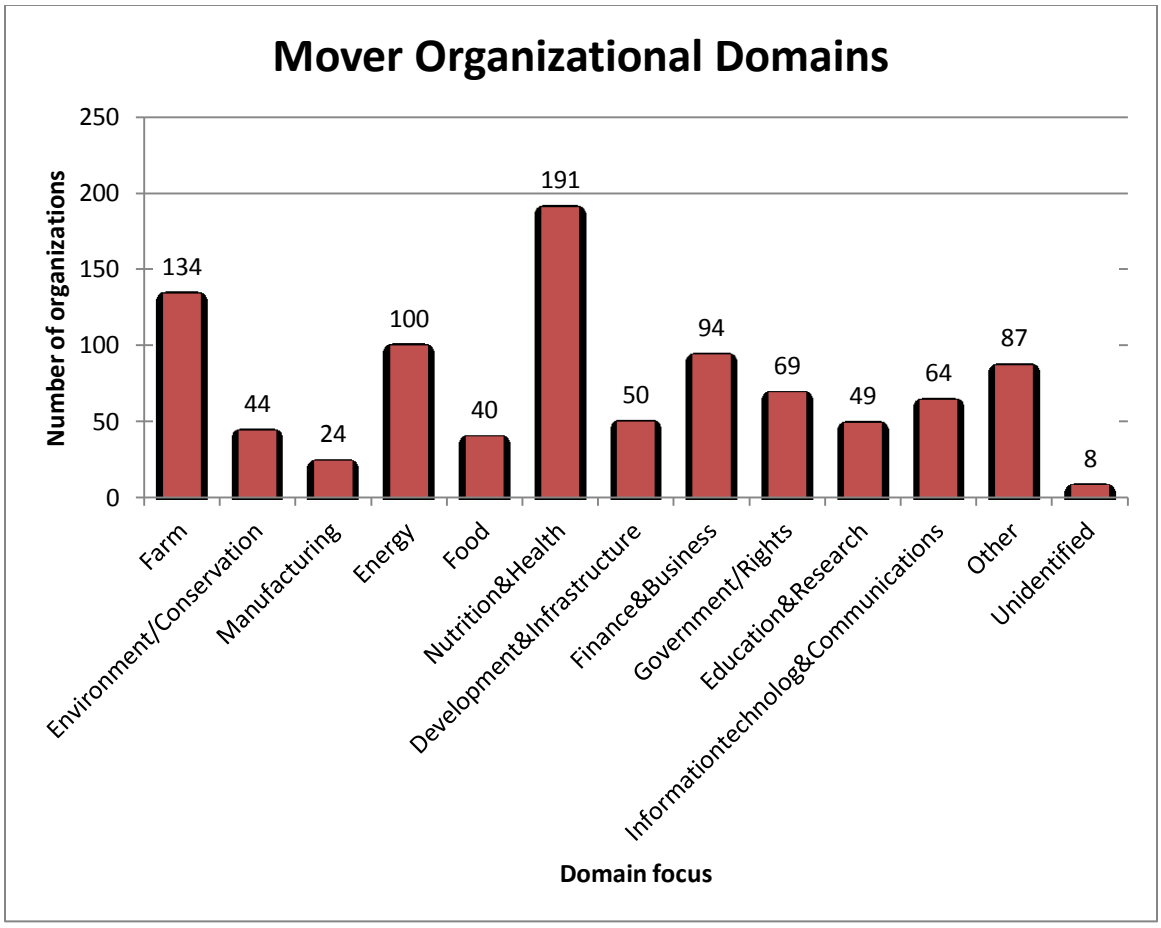


Figure 6. Domain Focus of Organizations Lobbing 'Mover' Federal Agricultural Legislation.

Coding of organizational scopes, or the structure of each organization, indicated that the vast majority of organizations were either corporations/companies, or

commodity/trade associations in both the full agricultural interest group community and the community that lobbied 'mover' legislation. The charts in Figure 7 and Figure 8 show a breakdown of organizational scopes.

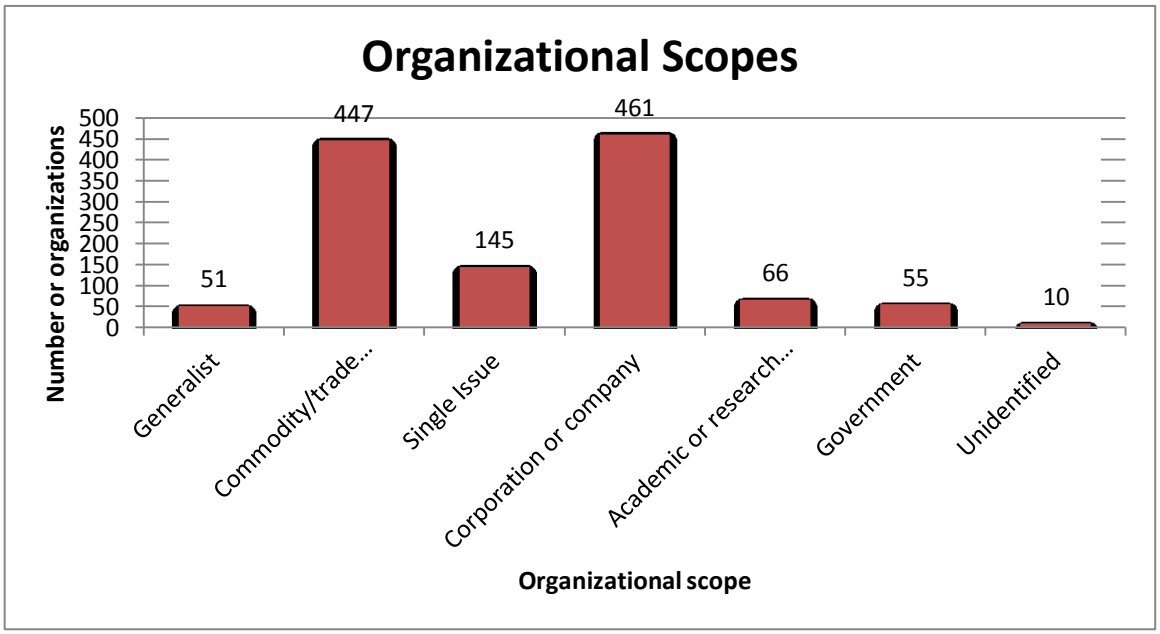


Figure 7. Scope of Organizations Lobbying Federal Agricultural Legislation.

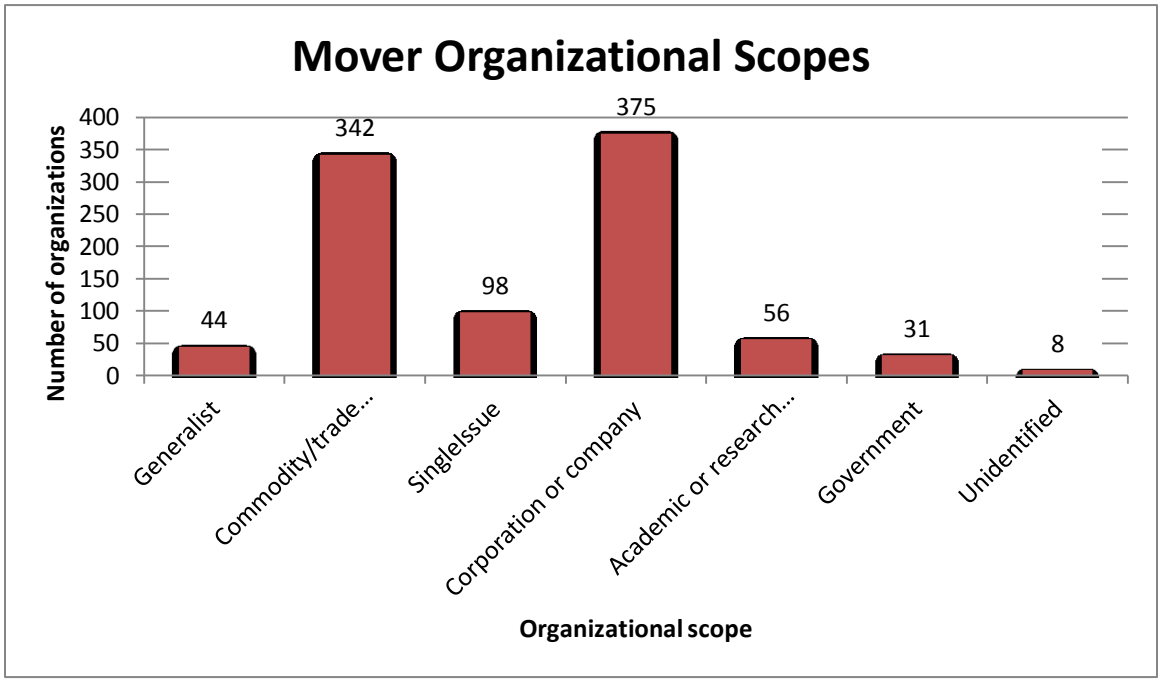


Figure 8. Scope of Organizations Lobbying 'Mover" Federal Agricultural Legislation.

Engagement Patterns: Full Analysis. The hierarchical cluster analysis of interest organizations was run twice to assess reliability, as discussed in the methods section. The alphabetical and random solutions had no apparently visible differences. The output of the alphabetical analysis is shown in Figure 9, with the number of clusters, *k*, including *k*=17, *k*=22 and *k*=27 clusters outlined. These values, representing the number of clusters in the solution, were determined based on the optimal cluster solutions returned by cluster indices, which are shown in Figure 10, as well as the dendrogram in Figure 9.

It should be noted that the optimal *k* values indicated by the CH index and C-index differed dramatically from those indicated by the Duda and Beale indices. While unclear, it is assumed that the difference is attributable to the variable computation methods for the different indices; the computation of these indices can be explored further by readers in Charrad et al., (2014). The optimal *k* values indicated by these indices were assessed in comparison to the dendrogram output by HCA analysis. It was determined that the Duda and Beale indices indicated similar solutions to the dendrogram interpretation. Thus the *k* values indicated by the combination of the Duda index, Beale index, and dendrogram were used in subsequent kmeans analysis. This was the case for both the full analysis and the analysis using a subsample of the data.

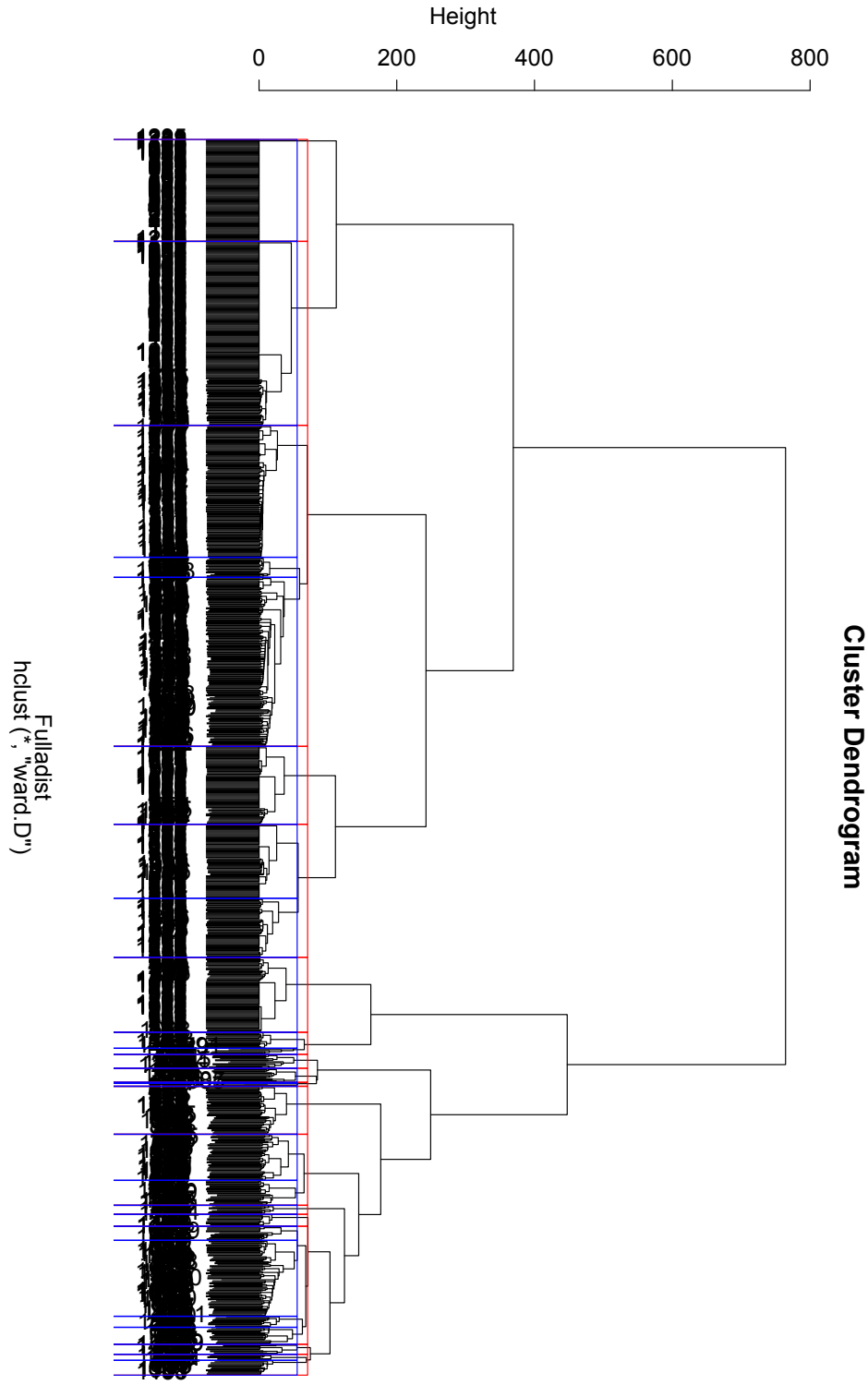


Figure 9. Hierarchical Cluster Analysis Dendrogram for Full Analysis.

Optimal Number of Clusters Determined by Internal Indices

Analysis using Euclidean distance and Ward's method of hierarchical clustering

Full Analysis

	CH	Duda	C	Beale
Number of Clusters	693	17	693	27**
Index Value	Infinite	3.1078	0	-3.201

'Mover' Analysis

Number of Clusters	284	8	284	8
Index Value	Infinite	11.2268	0	1.081

**Warning "Na's Produced" during analysis

Figure 10. Results of Internal Cluster Index Calculations.

Kmeans analysis was run using running cluster means and a maximum of 500 iterations with *k* values of 17, 22, and 27. In order to ensure the reliability of these results, analyses were run with the data ordered alphabetically and again ordered randomly, as discussed in the methods section. Kmeans solutions were compared both within *k* solutions, to check that the randomly ordered and alphabetically ordered solutions were similar, and across *k* solutions to compare the differences among the solutions with variable numbers of clusters in order to ensure the appropriateness of the final cluster solution.

The fewest differences between the randomly ordered and alphabetically ordered solutions appeared when *k*=22. For instance, in the *k*=17 solutions, single member clusters differed by four cases and in the *k*=27 cluster they differed by three cases. These differences are particularly important when considering that a major concern of this research is whether organizations exhibit distinct lobbying patterns, which would manifest as single-member clusters. Other differences among the multiple member clusters also were apparent between the alphabetical and random solutions in the *k*=17 and *k*=27solutions. For instance, an environmentally focused cluster, appeared in the *k*=27 alphabetical solution, but not in the *k*=27 random solution or either *k*=17 solution. Thus, the *k* = 22 solution was chosen as the most optimal. Also supporting this choice was the qualitative logical coherence of the clusters in the *k* = 22 solution; clusters included organizations that appeared similar, at least upon cursory readings.

There were few major differences between the alphabetical and random *k*=22 solutions, however, a few notable differences between the two contributed to the

alphabetical solution being chosen as most optimal. The random solution indicated one additional single member cluster, the Agricultural Retailers Association, than the random solution. The association appeared as a single member cluster in the random k=27 solution as well, but did not appear as a single member in any other clustering solutions. Because the appearance of the Agricultural Retailers Association as a single member cluster was sporadic and appeared only when data was ordered randomly, it was not deemed integral to the optimal solution. This distinction is important because a major concern of this research is whether and why organizations exhibit distinct lobbying patterns, as evidenced by single member clusters. An additional difference also contributed to choice of the alphabetical k=22 as most optimal:

1) Many energy related organizations lobbied agricultural legislation during the 112th Congress. Both k=27 solutions, which showed more detail compared to solutions with fewer clusters, included three distinct clusters of energy related organizations. This was also true of the k=20 alphabetical solution and matched what would be expected after examining the raw data. However, the k=22 random solution included only a single cluster of energy related organizations, while the alphabetical solution showed similarity to the more detailed solution with two distinct energy related clusters.

While choosing an optimal cluster solution is an important part of this analysis, the differences among these solutions were, after considering the complexity of the agricultural interest group community, less vital than one might realize. While detail is

important, this research is significant because it outlines the major patterns across the entire agricultural interest group community, patterns that are visible in the optimal cluster solution and many of the other solution alternatives. Another major significance of this research is that it analyzes the groups that show distinct lobbying patterns, which were largely similar across solutions.

The cluster visualization in Figure 11 shows the results of cluster analysis on the full data set when k=22 and data was ordered alphabetically. The size of the central bubble indicates the relative cluster sizes based on the number of organizations in each cluster. The descriptor in the central bubble relates the substantive focus of the bill with the highest mean value in the final cluster center.[8] While some cluster descriptors are the same, the pattern of lobbying by cluster members on other pieces of legislation was likely meaningfully different. The organizations placed directly above the central bubble are the closest, in terms of their Euclidean distance dissimilarity measure, to the cluster center; thus, they are the most representative of the lobbying characteristics of cluster members. [9] Labels on the visualization correspond to labels on additional data visualizations to allow for a fuller understanding of engagement patterns by comparing across visualizations.

---

[8] It should be noted that the variable with the highest mean value for the final cluster center may not represent a bill that was lobbied by all cluster members, but that which was lobbied the most intensely by members of the cluster. In most cases, the highest mean variable in the final cluster center was legislation lobbied by all members of the cluster, but in a few instances this was not the case.

[9] For readability, the cluster visualization shows only the 20 most central organizations in the three largest clusters. The central bubble of these clusters indicates total cluster membership.

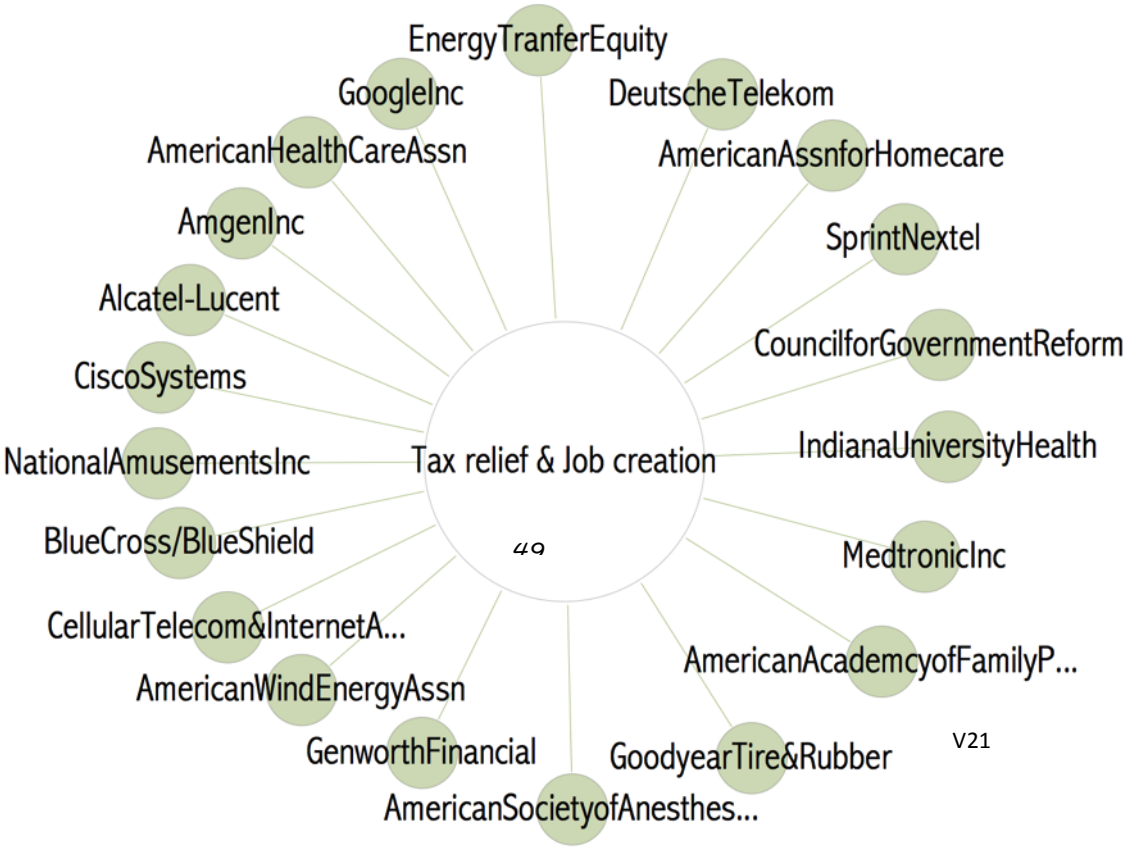
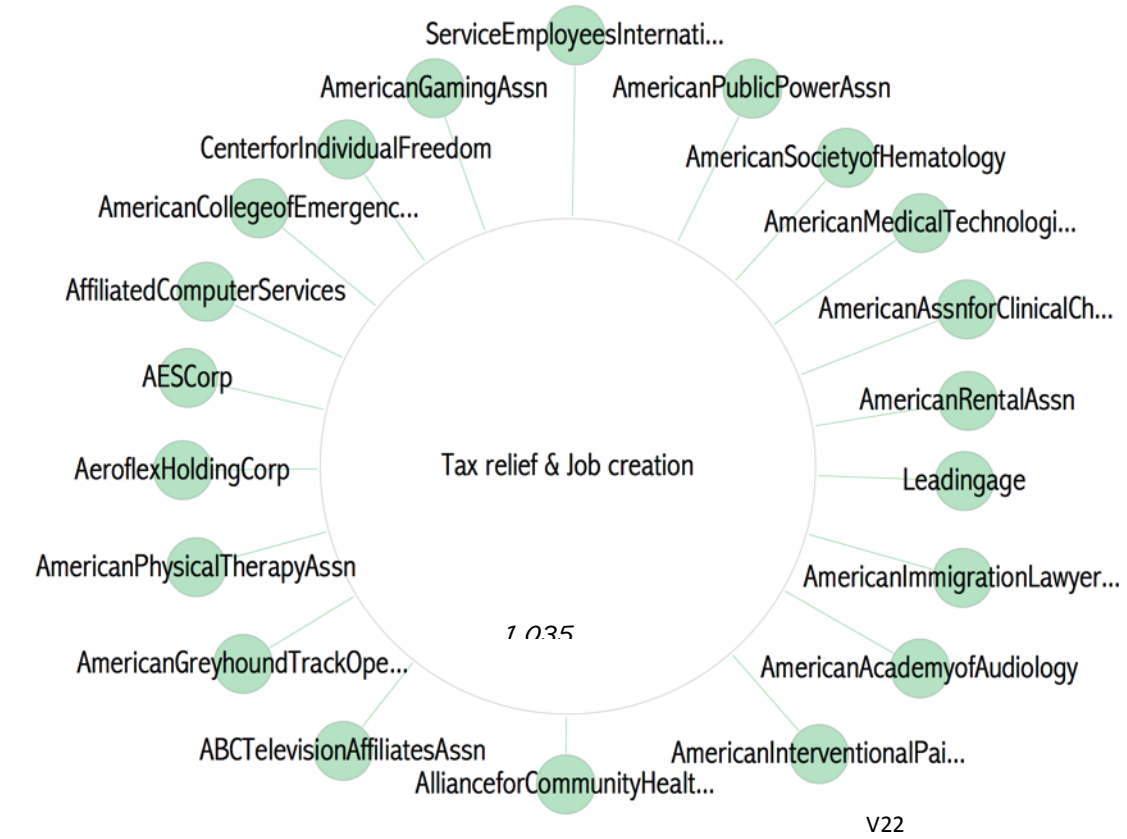
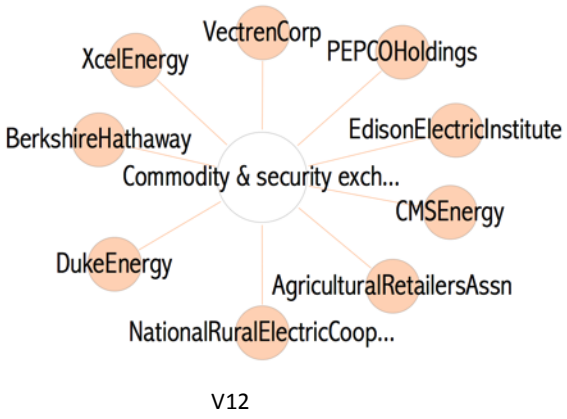
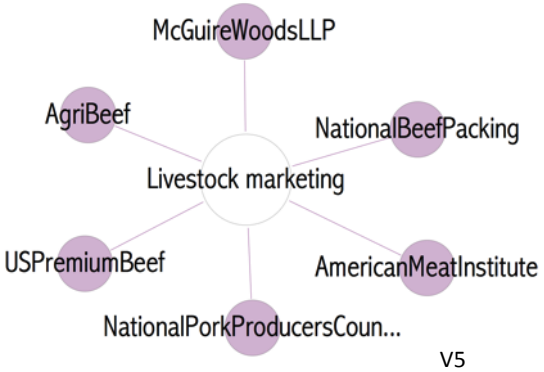


Figure11. Full Analysis Cluster Visualization. Continued

Figure 11. Continued.

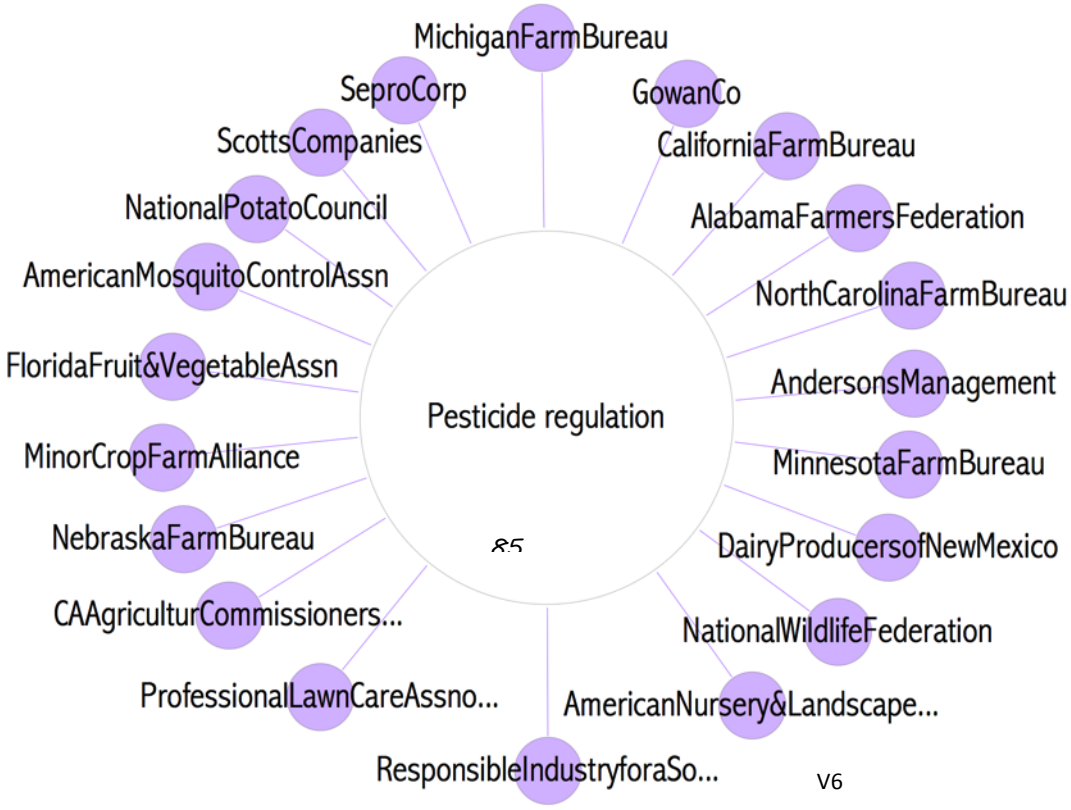






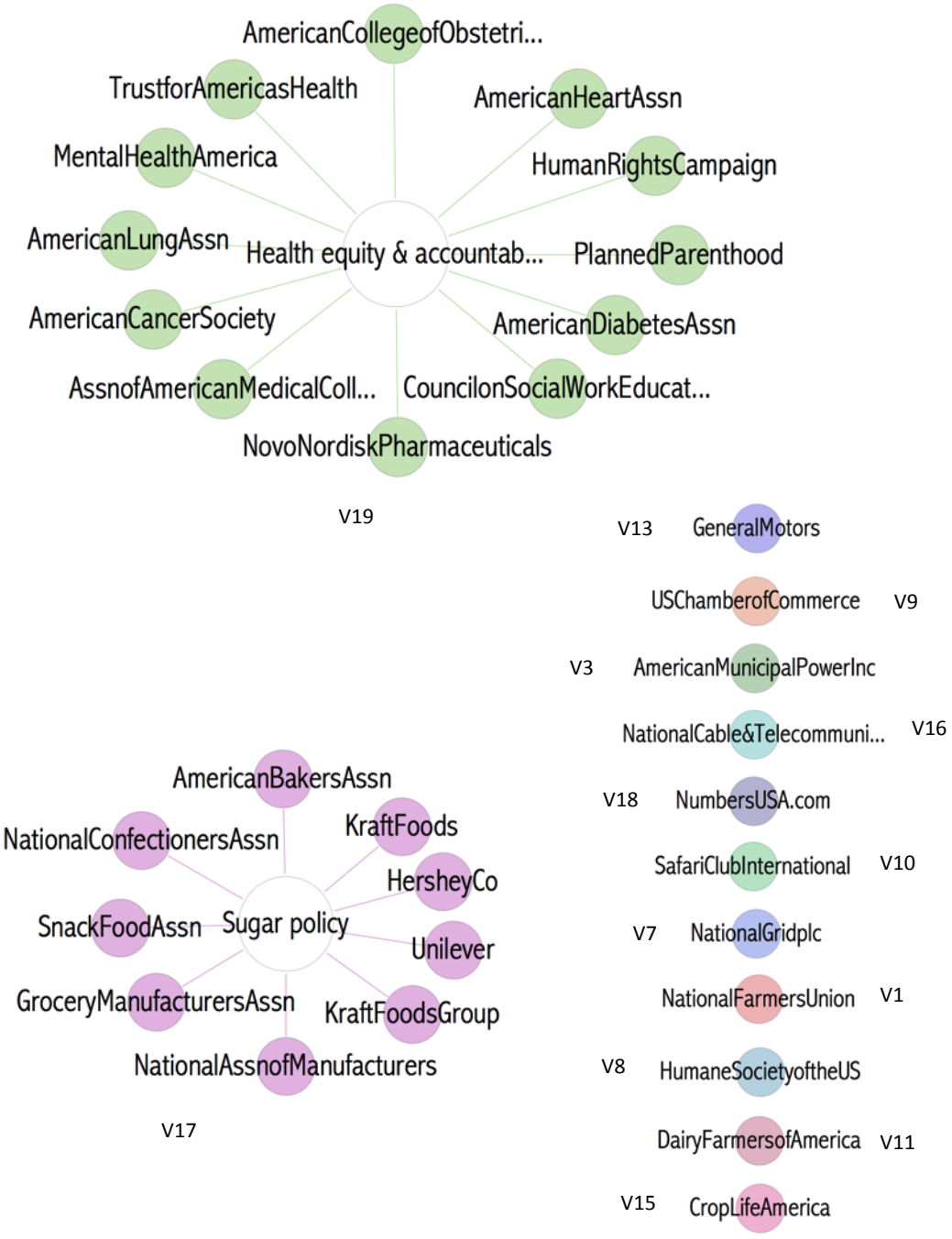
Continued

Figure 11. Continued.



Continued

Figure 11. Continued.



The bipartite graph in Figure 12 shows individual cluster members and the agricultural legislation they lobbied during the 112th Congress. Each of the white nodes along the center represents agricultural legislation. Colored nodes represent organizations and are colored according to their cluster membership. Organization nodes are connected to the legislation they lobbied during the 112th Congress. The graph visually represents patterns of lobbying in a complimentary manner to the cluster visualization in Figure 11; Figure 12 illustrates the general patterns of lobbying across the entire interest group community as well as the lobbying patterns of individual clusters. The goal of this visualization is to reveal general patterns and should not be read for details.

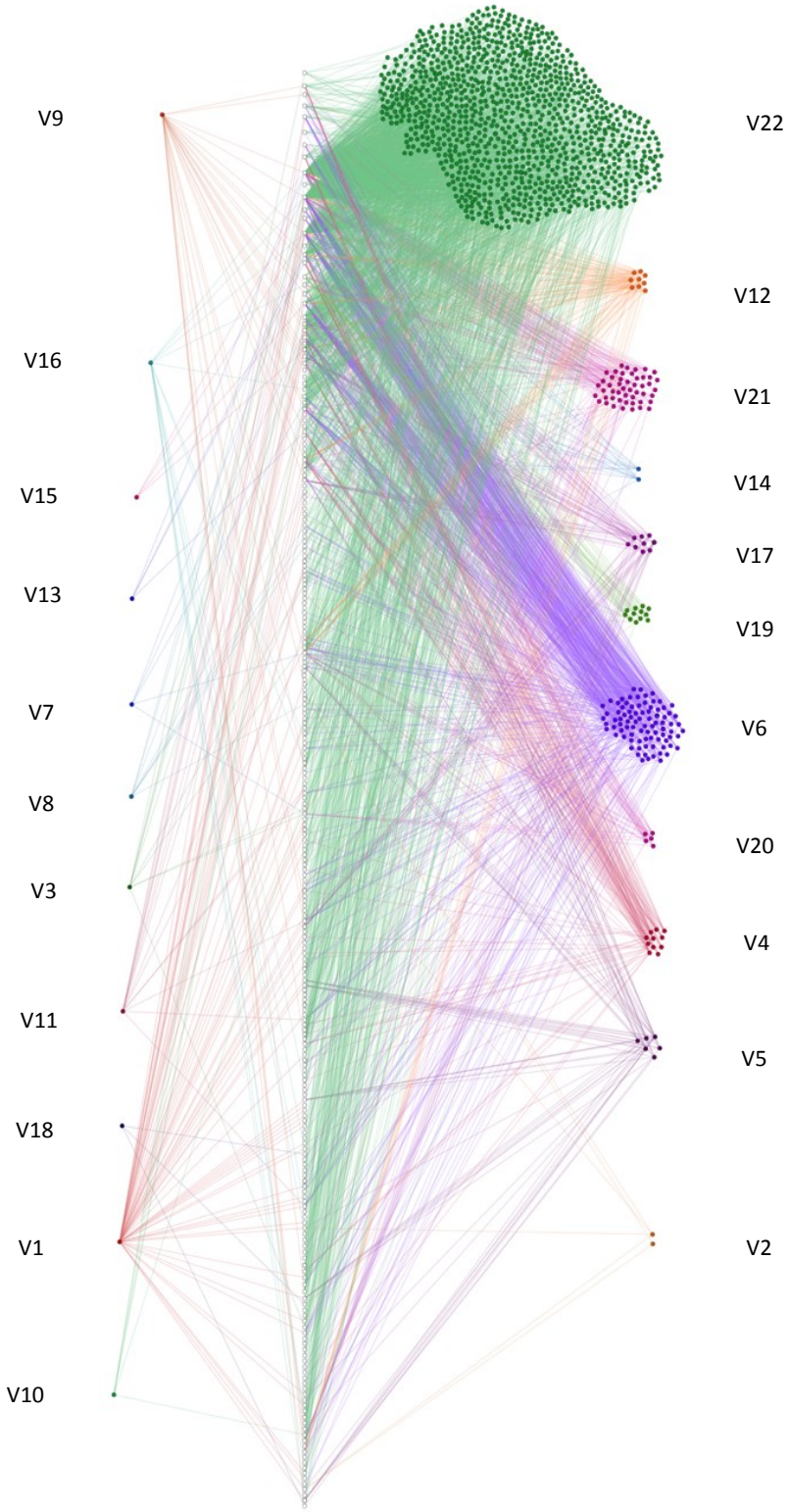


Figure12. Bipartite Graph of Agricultural Interest Group Lobbying.

Finally, the MDS plots for clusters based on the full analysis is shown in Figure 13; the plot shows a visual representation of the dissimilarity among the final clusters in the full analysis, allowing a further understanding of the clusters that exhibit unique lobbying patterns.

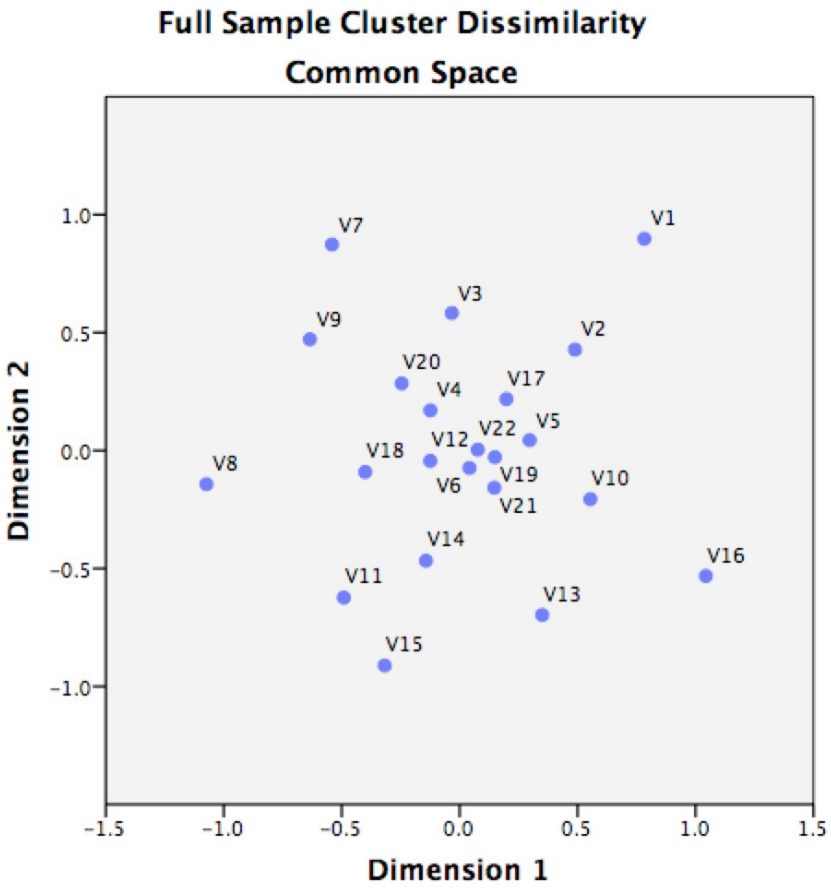


Figure 13. Full Analysis Multi-Dimensional Scaling Results.

Engagement Patterns: 'Mover' Analysis. The hierarchical cluster analysis of interest organizations for the subsample of data considered "mover" bills was run twice to assess reliability, as discussed in the methods section. The alphabetical and random solutions had no visible differences. The output of the alphabetical analysis is shown below, highlighted at k=8. The k value was determined based on the optimal cluster solutions returned by cluster indices, which are shown in Table 3. As the dendrogram in Figure 8 indicates, k=8 is quite similar to what would be deduced based on the dendrogam alone.

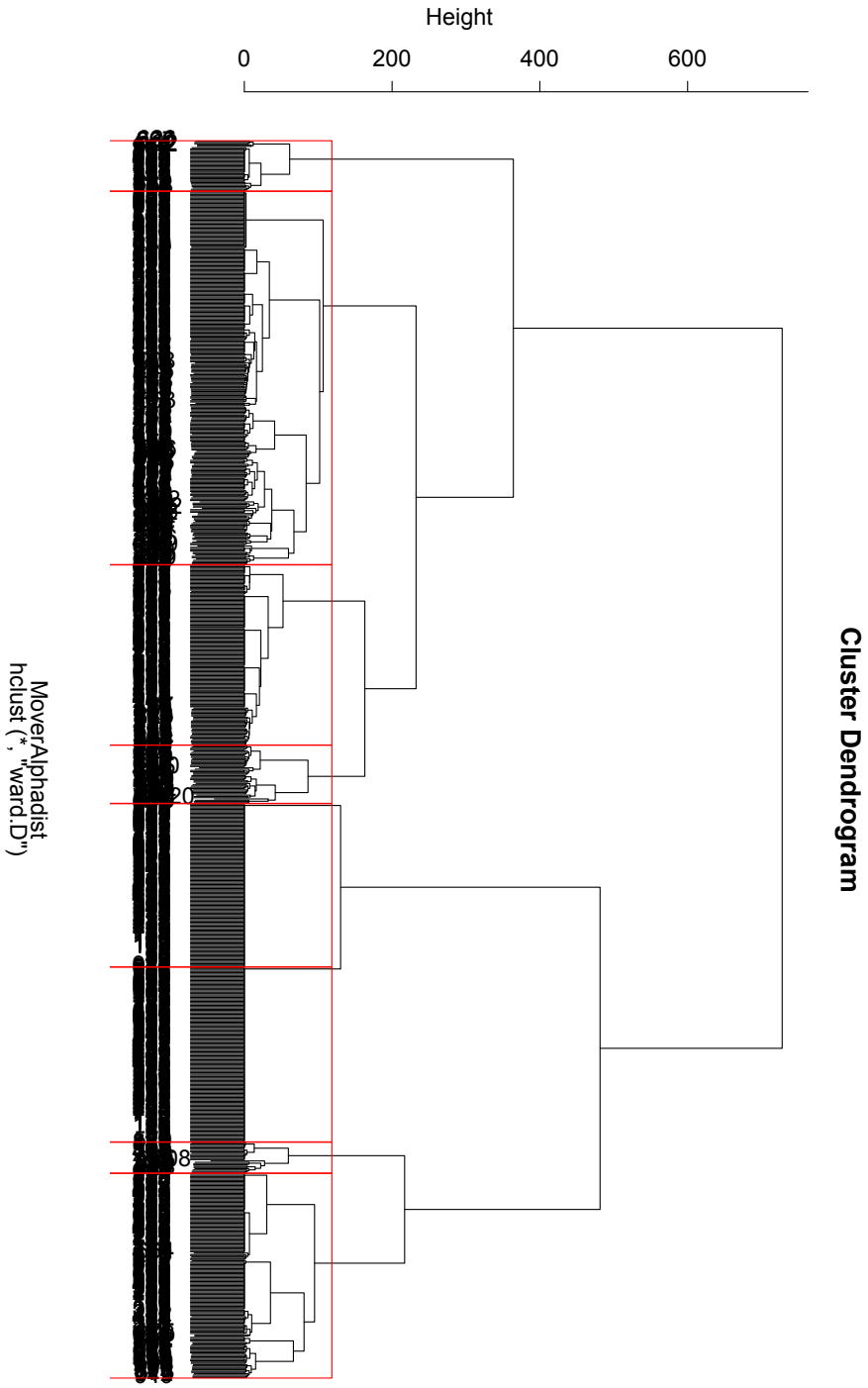


Figure 14. Hierarchical Cluster Analysis Dendrogram for 'Mover' Analysis.

Thus, kmeans analysis was completed using running means with a maximum of 500 iterations and k= 8. Kmeans analysis was completed on the subsample of data ordered alphabetically and again ordered randomly, as discussed in the methods section.

The alphabetical and random solutions for the subsample of data showed multiple similarities as well as a few major differences. First, the alphabetical solution indicated only one single member cluster, the National Farmers Union, while the random solution returned two clusters, adding Safari Club International to the single member clusters. Interestingly, in the alphabetical solution, Safari Club International was the most distant case from the cluster center in the cluster where it was included, indicating that it was the most dissimilar organization from the case representing the average characteristics of cluster members. The other major differences in the two solutions included: 1) a four member cluster of dairy organizations and a six member cluster of meat and livestock organizations were included in the alphabetical solution, but not in the random solution; 2) a large 49-member cluster was included in the random solution, while the same cases appeared to be subsumed into the largest cluster (744 members) in the alphabetical solution; 3) the most central cases in the cluster of food and beverage companies differed slightly across the two solutions while the membership sizes were slightly different (11 members compared to 7 members); 4) the most central cases in the cluster of finance and energy organizations differed across the two solutions and the membership sizes were slightly different (45 members versus 53 members); 5) the most central cases in the clusters of communications organizations differed and the number of members in the clusters varied slightly (10 compared to 14 members).

One of the major concerns in this research is single member clusters, which represent organizations with ostensibly distinct lobbying patters. Because the random solution differentiated an additional single member cluster—the appearance of which was supported in the alphabetical solution—it was chosen as the most optimal solution. Again, the choice of the random versus alphabetical cluster solution was viewed as making little difference to overall conclusions regarding patterns in the domain.

The cluster visualization in Figure 15 shows the results of clustering analysis on the 'mover' subsample of data using the optimal k=8 random solution; the visualization is constructed similarly to the full cluster visualization in Figure 11.[10] Figure 16 also shows a bipartitie graph for the subsample of data similar to the bipartite graph for the full data set in Figure 12. Labels on the visualization correspond across visualizations to allow for a fuller understanding of engagement patterns through comparisons.

[10] For readability, the cluster visualization shows only the 20 most central members in the two largest clusters. The central bubble of these clusters indicates total cluster membership.

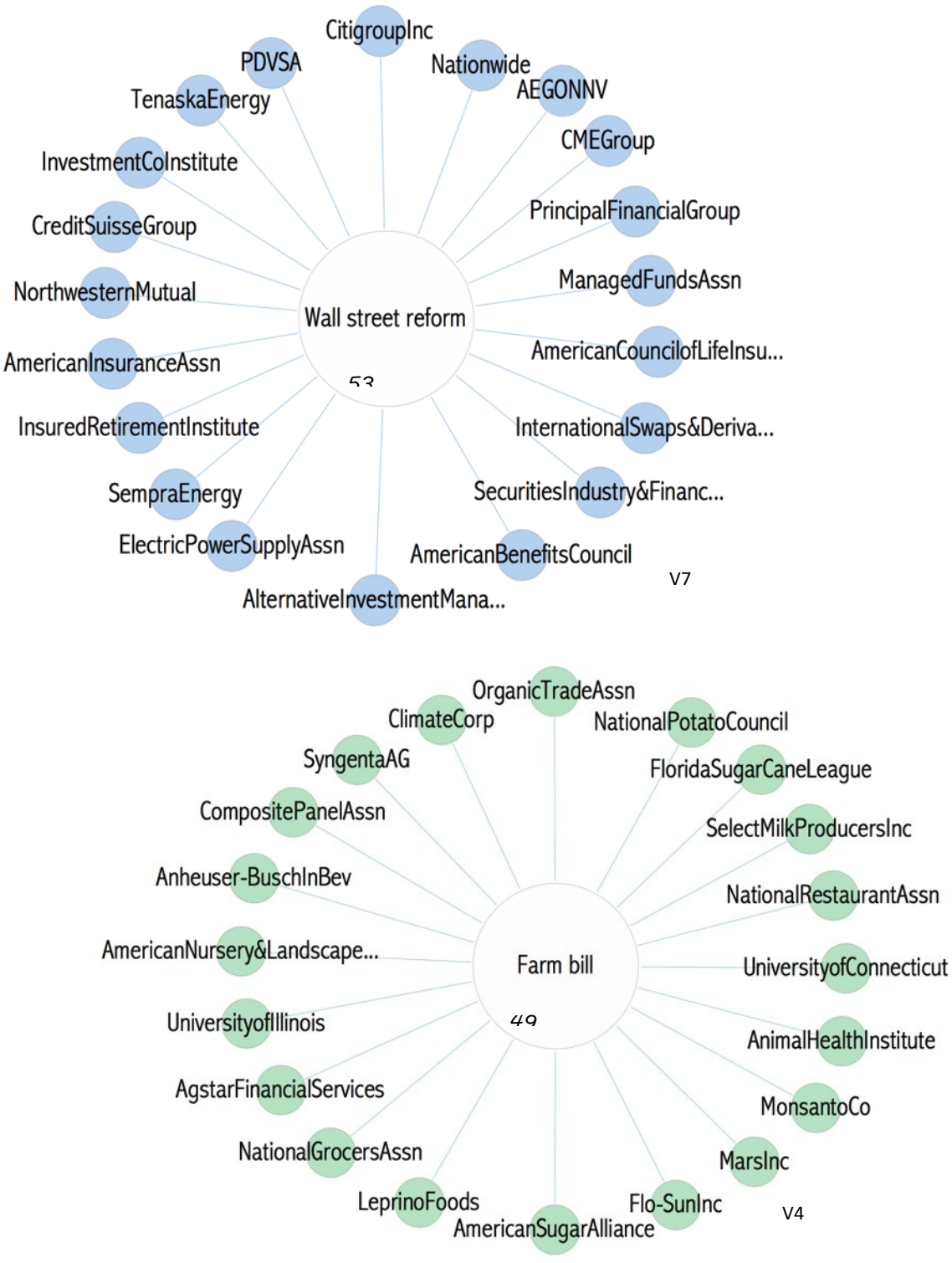
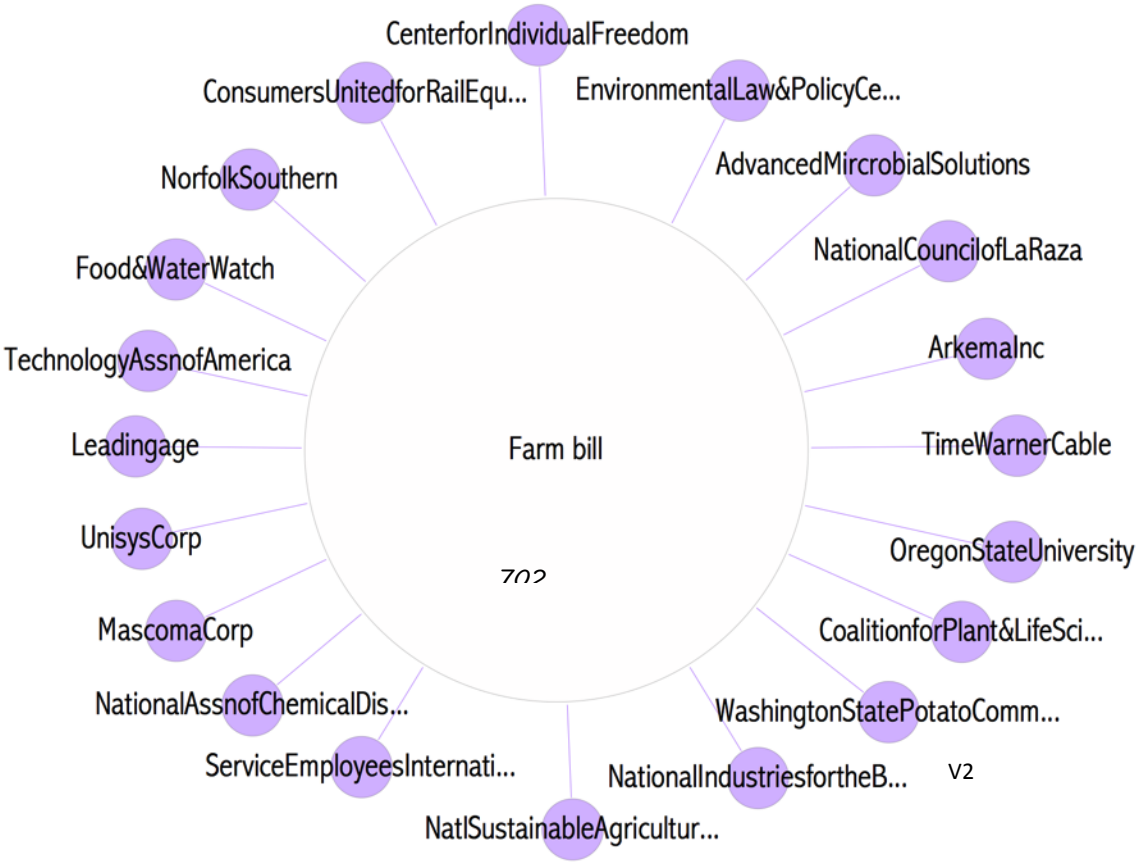
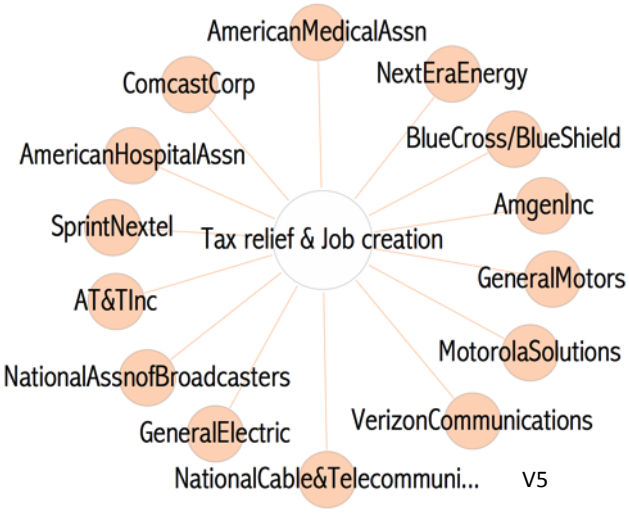
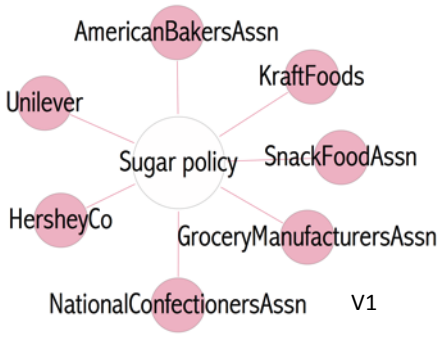


Figure 15. Mover Analysis Cluster Visualization. Continued

Figure 15: Continued.

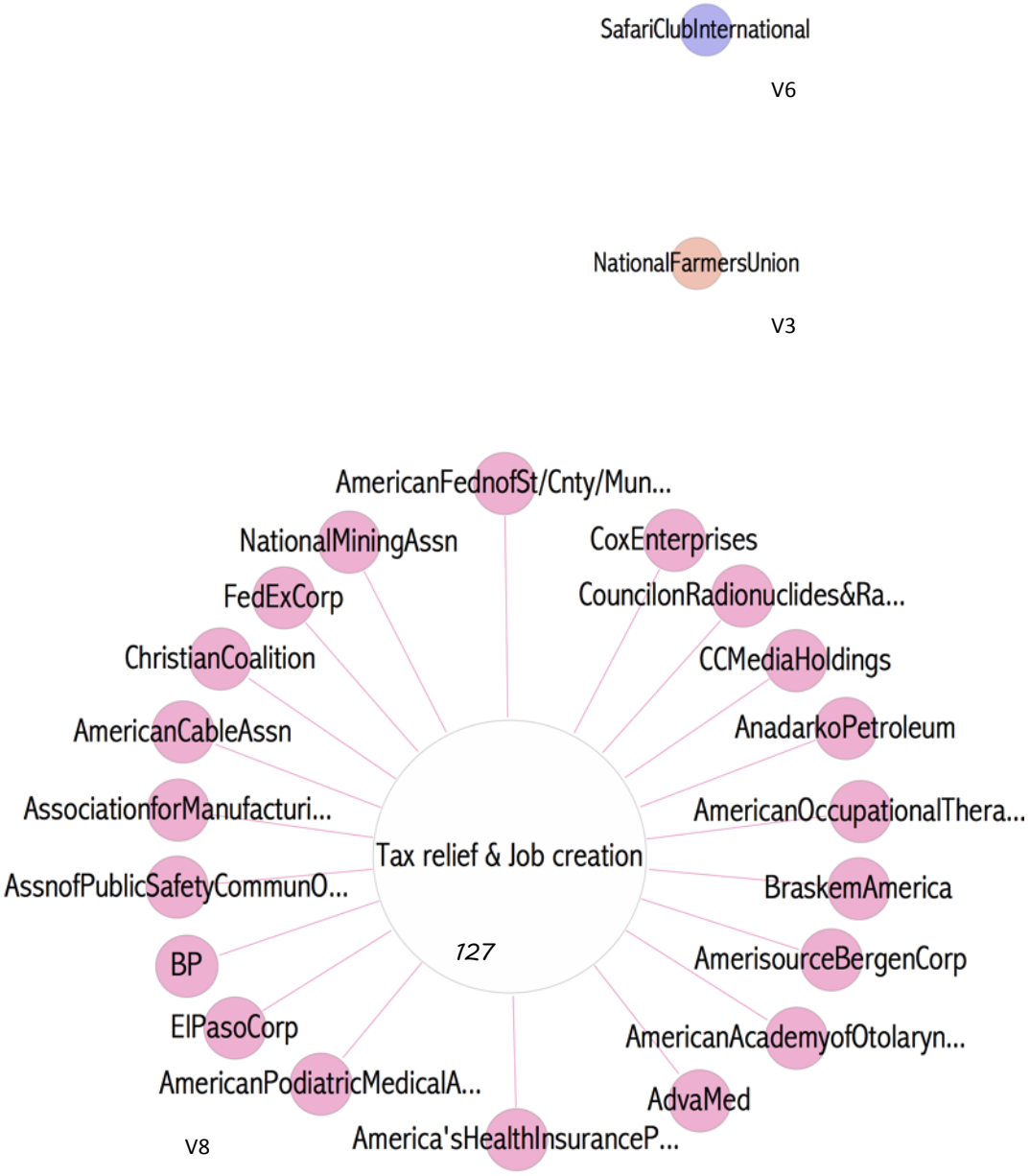






Continued

Figure 15: Continued.



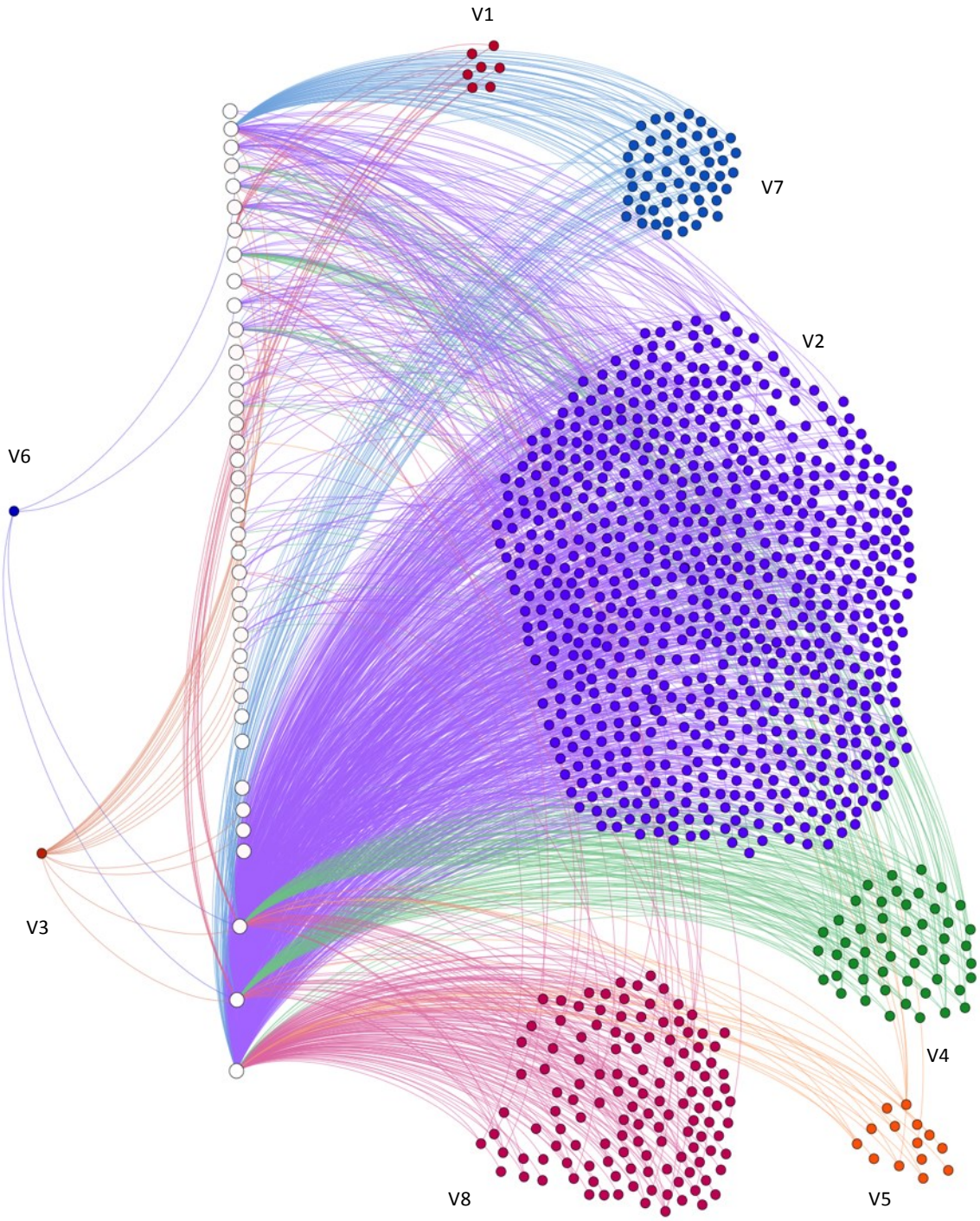


Figure 16. Bipartite Graph of 'Mover' Agricultural Interest Group Lobbying.

The multi-dimensional scaling plots for clusters based on the full analysis is shown in Figure 17; the plot shows a visual representation of the dissimilarity among the final clusters in the 'mover' analysis, allowing a further understanding of the clusters that exhibit unique lobbying patterns.

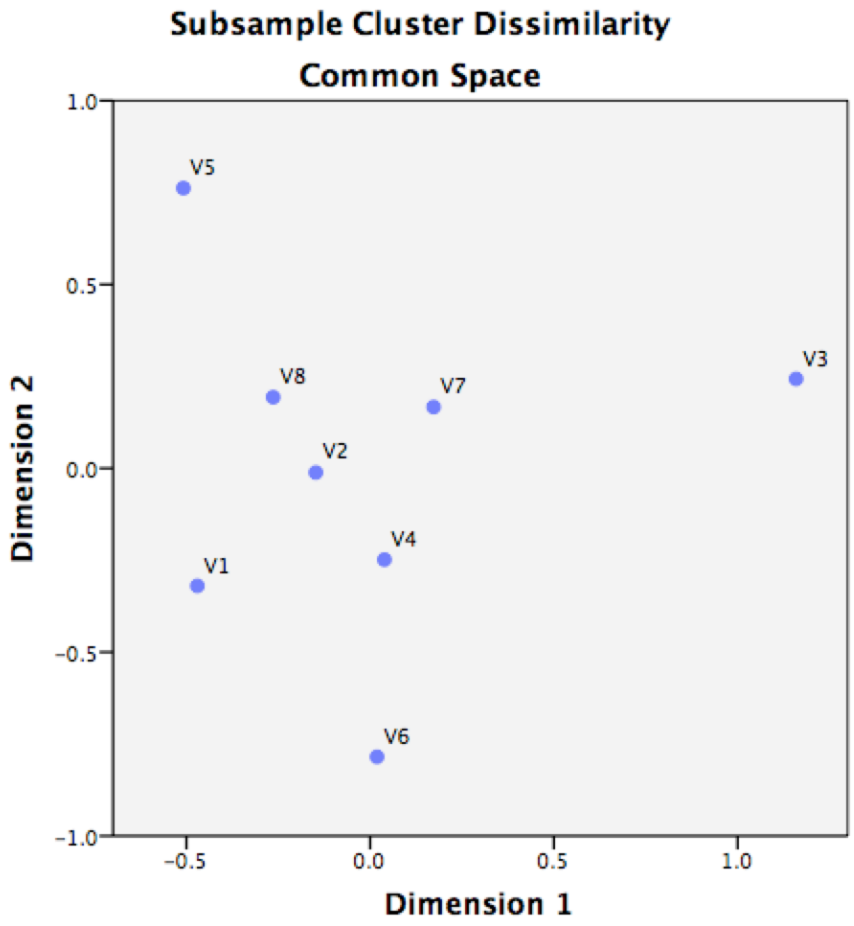


Figure 17. 'Mover' Analysis Multi-Dimensional Scaling Results.

Do the organizations that participate in the federal agricultural policy domain exhibit resource partitioning behavior?

Interviews were completed to examine the niche partitioning behavior of interest groups engaged in federal agricultural policy. Only those interviews completed with organizations included in the set of interest groups lobbying federal agriculture legislation, four organizations, are discussed here.

According to Gray and Lowery (1996), "Evidence of partitioning, according to ecological theory, would indicate a state of severe competition over a vital resource dimension" (p. 99). The authors claim that partitioning behavior would be evidenced by domination by key legislators, jurisdiction in one or a few committees, rare conflict over goals among organizations, and a structure or strategy of debate that allows avoidance of opponents.

Policy Engagement Setting. Three out of four interviewees indicated that it is "sometimes true" that only a few key legislators make decisions that really matter in the agricultural policy area, while only one interviewee stated that this was rarely the case. When asked to indicate to what extent it is true that legislative jurisdiction over issues in agricultural policy area is restricted to one or a few committees, two respondents indicated the statement was often or sometimes true, while a third agreed that the area was restricted to a few committees. A fourth interviewee indicated that this statement was rarely true. Interviewee comments regarding legislative jurisdiction are illustrative:

> The vast majority [of agricultural issues] is in a few, but…I'm going to state rarely only because I've learned over time that there are obscure

issues that touch on our industry and that happen in committees that are not routinely monitored.

These responses indicate mixed results for the idea that the agricultural policy engagement setting is structured to involve only a few main legislators and committees. Thus, the structure of engagement in the agricultural policy domain is not necessarily one that encourages conflict.

Policy Engagement Behavior. However, when examining the policy engagement behavior, interviewees indicated that intense conflict occurs at least a portion of the time within the domain. Two respondents indicated that the statement, "The agricultural policy area is marked by intense conflict and disagreement over fundamental policy goals," is often true, while two others indicated that it is sometimes true. The presence of conflict, at least a portion of the time, indicates that partitioning behavior is weak. Further supporting that partitioning behavior is weak in the agricultural domain were responses indicating that organizations faced the same opponents over time (3 sometimes, 1 often), that they faced direct opposition when lobbying their positions (1 always, 3 often), and that they often cooperated with other organizations (2 always, 2 often). These responses indicate that both competitors and allies interact within the domain.

Some interviewees indicated that competition with other organizations was issue-dependent, rather than always consistent across the overall agricultural domain. They indicated that the organizations that are considered competitors vary according to the issue at hand. Further, one interviewee indicated that both competition and cooperation can occur between two organizations; in other words, a competitor is sometimes a

cooperator and vice versa. Thus, partitioning, if it occurs in regards to policy engagement, is not necessarily a static concept.

To further examine the existence of partitioning on policy engagement, respondents were instructed to choose between statement pairs to best describe their organization's strategy when faced with real or potential competition for influence in a policy area. The statements read: "We work hard to make sure that we are a major player on all issues relevant to our policy concerns; OR We cooperate with our competitors by letting them take the lead on some issues, while we take the lead on others. OR Neither." Three out of the four respondents chose the second statement, which Gray and Lowery (1996) indicated as an 'active partitioning' strategy in which "the competitor is recognized while partitioning is taking place" (p. 107). Again, interviewees' detailed responses were illustrative. As one interviewee explained, their organizations' strategy was likely a combination of both the first and second statement, but that,

> There are certain things that may be of a higher priority to other organizations that isn't as high of a priority for us, so we're happy to let another group take the lead, but we always make our presence very well known—yes, we're here and we're willing to help out. But…we do work in coalition a lot…there is a lot to keep up with, so you…have to prioritize.

These responses, contrary to earlier statements, indicate that active partitioning is likely taking place in the domain.

Perhaps more important to this limited analysis of whether niche partitioning occurs in the federal agricultural domain, were responses to inquiries about

organizations' methods of choosing and prioritizing the issues they lobby. All four organizational representatives referenced input by or consideration of their membership when choosing the issues they engage; three of the four incorporated direct input by their members through a grassroots process. The responses of two interviewees offer some useful insight.

> …We put issues through a couple of primary filters. We look at how broad the impact of the issue on our members. We look at…what is our realistic capacity as an organization to have impact. And…frankly on a practical level, we look at, do our members care enough about the issue and the possible impact to support our working in that space.

Another interviewee explained that after a grassroots process, organizational staff review the impact that issues will have on members, the likelihood that action that affects the policy will take place, and the potential for the organization to impact the outcome of the policy.

When the same interviewee was asked about competition for members, they explained that when their membership overlaps with that of another organization,

> We attempt in that case to engage, cooperate, coordinate. We attempt, from an issue management standpoint…to avoid…competing with each other.

Taken in conjunction, these interview responses indicate that evidence of niche partitioning behavior on policy engagement is mixed, but likely takes place to an extent. Policy engagement is strategized largely on the policy's impact on organization members.

Membership. These findings point to the fact that members drive policy engagement, so perhaps membership is an area where organizations seek to create a niche. Gray and Lowery (1996) indicated that members are one of the resource domains where organizations may seek to partition niches. Interviewees in this research indicated mixed responses to whether competition for members exists in the federal agricultural policy space. Respondents indicated that individuals often could be members of multiple organizations specializing in different areas, so competition was not necessarily a useful descriptor of the situation. Additionally, when asked to indicate whether their strategies when faced with competition for members aligned with a resource conflict or active partitioning method—using a statement pair similar to the one discussed previously—three out of four respondents indicated neither strategy. Thus, while members play an integral role in the policy engagement strategies of organizations, membership is not an area where organizations work to create a viable niche.

Perhaps creating a niche in the membership area is more of a concern for new or emerging interests rather than those that are established; this facet was not examined in this research, but could be considered in future interest group research.

Additional resource domains were inquired about during interviews, including finances, and member benefits, but because the focus of this research was policy engagement, these responses fell outside the scope of this project.

Chapter 6: Discussion

A major goal of this research was to characterize the federal agricultural interest group community and to understand based on quantitative data who participates and how the participate in the domain. But first, it is fitting to answer the question—how was federal agricultural policy characterized during the 112th Congress of the United States?

The legislation that was referred to either Congressional chamber's agricultural committee during the 112th Congress was mostly legislation that dealt with farm and environmental issues. Over half of all bills referred to either of the congressional agriculture committees was considered in one of the two domains, which focused on issues from marketing programs for commodities and crop insurance to federal lands and pesticide regulation, among many others. The remainder of all agricultural bills were split among energy, food, nutrition, rural development, finance, government and other issues. The smallest category of legislation dealt with rural development. It is important to note that a number of the issues considered in the "other" domain were workforce development or border protection measures. Thus, the scope of agricultural policy, while encompassing a vast range of issues, is largely focused on agricultural production and the environment. This finding supports Bonnen, Browne and Schweikhardt's (1996) assertion that the scope of agricultural policy has widened to encompass a wide range of

issues with a caveat; the focus of the domain remains overwhelmingly on agricultural production and the environment. These findings also show tentative support Buttel's (2003) thesis regarding the 'environmentalization' of agriculture. However, it should be noted that Buttel (2003) was referring particularly to environmental regulation with the concept and the legislation characterized as focused on the environment here was wider ranging that simply environmental regulation of agricultural production. Appendix A details the coding of legislation.

'Mover' agricultural legislation, which included approximately 45 bills, was even more focused on farm issues than the set of all agricultural legislation. As in the full analysis, the majority of 'mover' issues fell into the farm and environment domains, again supporting the idea that the domain remains focused on agricultural production and the environment, despite also considering a range of other issues.

It is interesting to note that very few of the bills that were referred to either the House Agriculture Committee or the Senate Committee on Agriculutre, Nutrition and Forestry were signed into public law. Only five of the 315 bills became law, which is perhaps not surprising considering characterizations of the 112th Congress as stymied by political battles.

Agricultural Interest Group Community Structure

How Many and What Types of Groups Participate? As expected based on Hypothesis 1a (H1a), the federal agricultural interest group community encompasses a large and diverse set of actors. Over 1,200 unique organizations engaged agricultural

legislation during the 112th U.S. Congress. In addition, a large number of these same organizations, 954, lobbied one or more pieces of 'mover' agricultural legislation.

The organizations making up the federal agricultural interest group community ranged from health companies to generalist farm groups and every imaginable interest in between. Of particular interest is that the majority of organizations did not focus in any one domain. Rather, the domain areas of the over 1,200 organizations were split across many domains including farm issues, development and infrastructure, food, nutrition, and others. Approximately 17% of the organizations focused on nutrition and health, representing the largest single set of interests in the community. Many of these organizations were hospitals and health systems accounted for largely by engagement on workforce development measures that sought changes to Medicare. As expected based on Hypothesis 1b (H1b), only approximately 13% of organizations were considered "farm" organizations, meaning the majority of interests were non-farm organizations. These findings offer an expansion of Buttel's (2003) assertions that agricultural protest is pushed largely by non-farm organizations; agricultural legislation is lobbied largely by non-farm organizations.

Turning to the scope of organizations that engaged federal agricultural policy, the overwhelming majority of interests were either commodity/trade associations or corporations/companies, split almost evenly between the two. First, this finding mirrors the assertion of other scholars that over time interest organizations have increasingly represented specific rather than broad interests (Reimer 2013). As early as 1980, scholars

pointed out that, “Some see the strength and influence shifting from general farm organizations to commodity groups because of their ability to be specific and research the issues” (Guither, 1980 p. 163). The current research shows that general organizations that represent broad based interests, such as general farm or rural interest organizations are relatively rare in the agriculture domain. However, while there are relatively few of these groups, they are also highly active compared to other organizations. When compared to other organization types, generalist organizations were the most active. In addition, of the five organizations that lobbied the most agricultural bills, four were generalist organizations. Further, the most active organizations on ‘mover’ bills, or those that lobbied more mover bills than all other organizations were exclusively generalist farm organizations. Table 5 compares the median number of bills lobbied by each organization type.

Organization Scope	Median Number of Bills Lobbied
Generalist	4
Commodity/trade associations	2
Single issue	2
Corporation or company	1
Academic or research institution	1
Government	1

Table 5. Median Number of Bills Lobbied by Types of Organization.

Compare this information to the implications of niche theory’s competitive exclusion principle, which holds that generalist organizations remaining in a densely populated interest group system are likely to narrow their activities to those issues where they possess a competitive advantage (Lowery, Gray, Kirkland, & Harden 2012). This

research suggests that generalist organizations have not narrowed their activities compared to other types of organizations in the agricultural domain. Rather, generalists in agriculture exhibit a wider range of policy engagement. However, rather than directly conflicting with the competitive exclusion principle a wider range of activities may contribute to the competitive advantage of generalist groups. Generalist organizations are likely to have a larger and more diverse membership base than other organizations and so by engaging those issues that impact their members, as interviews suggested was the case, they engage across a wider range of issues. Whether their wider activity range impacts generalists' ability to be influential compared to other organizations is a question for future research.

Engagement Patterns. Results of cluster analyses indicated that the lobbying patterns of the majority of interest groups in the federal agricultural domain were quite similar. These findings answer the sub-research question, "*What is the pattern of [interest groups'] engagement in relation to one another?"* and have bearing on Hypothesis 2.

Over 1,000 of the 1,235 organizations in the domain were placed in the same cluster when examining the full data set. This was also the case in the 'mover' analysis, in which 702 of the 954 organizations were placed in the same cluster. Thus, the agricultural interest group community engages the policymaking process in an overwhelmingly similar pattern.

This does not indicate that policy engagement niches are not created, but very few of the 1,235 interest groups in the domain exhibited unique lobbying patterns. In the full analysis, only 11 organizations appeared as single member clusters whose lobbying

pattern was unique. Examination of the multi-dimensional scaling plots for the full analysis provides further support for this conclusion. Many of the clusters in the plot were grouped in close proximity to one another, indicating similarity. However, certain clusters including V1, V2, V8, V11, V15, V13, V7 and V9, appeared further from the central grouping in the plot, indicating that they showed more dissimilarity from the other clusters. Indeed these clusters corresponded to single-member or niche organizations.

The list of organizations that created a policy engagement niche in the full analysis includes a number of easily recognizable, or prominent, national organizations. Those groups were: 1) American Municipal Power, Inc.; 2) CropLife America; 3) Dairy Farmers of America; 4) General Motors; 5) Humane Society of the US; 6) National Cable and Telecommunications Association; 7) National Farmers Union; 8) National Grid; 9) NumbersUSA; 10) Safari Club International; 11) US Chamber of Commerce.

The results of the 'mover' cluster analysis also indicated very similar results to the full analysis; only a very small number of organizations created niches. In the 'mover' analysis, the MDS plot indicated that clusters were more dissimilar than those in the full analysis, likely because they included many more groups on average. Again, those clusters that were the most dissimilar—or were a further distance from others in the plot,—corresponded to the single-member niche organizations along with a 14 member cluster focused on a tax relief and job creation. In the sub-analysis of 'mover' bills, only two organizations created single-member clusters. These organizations were also noted as niche organizations in the full analysis: 1) National Farmers Union; 2) Safari Club International.

These niche organizations lobbied multiple and sometimes many pieces of legislation; all lobbied more bills than the average of 2.69 per organization. In fact, two of the unique, single-member organizations were among the most active of all organizations in the data set and five organizations lobbied ten or more bills. All of the niche organizations also reported a high lobbying intensity, meaning that they reported lobbying bills on multiple disclosures or over an extended period of time; disclosures are filed quarterly.

The range of interests represented by these niche organizations is highly variable and includes broadly focused farm and business organizations, commodity producers, immigration interests, animal rights, conservation, energy, manufacturing and transportation, and communications. The organizations are also variable in their scopes; they represent corporations, single issue organizations, generalists, and trade associations. It does not appear that a specific type or interest focus is more likely to have created a policy engagement niche.

In addition to the findings related to the research questions and hypotheses outlined early in the research process, a few other notable conclusions regarding the structure of the agricultural interest group community arose. First, while the large number of environmentally focused bills shows tentative support for Buttel's (2003) environmentalization thesis, the number of environmental organizations that engage agricultural legislation is quite low; only 4% of groups that lobbied in the domain were focused on environment and conservation. Based on this mismatch, a few inferences can be contemplated: 1) the environmetnalization of agriculture may be occurring largely on

the part of legislators rather than interest groups, 2) the small number of environmental interest groups are quite successful at influencing legislation, 3) the push for greater environmental regulations on agriculture comes from policy engagement outside of lobbying, such as grassroots mobilization.

Second, the extent of engagement by corporations or companies seen in this research was somewhat unexpected, but corporations turned out to represent a major segment of the interests lobbying federal agricultural legislation. The influence of corporations, and more directly the extent of their spending on lobbying political processes, has been the subject of much public scrutiny (Porter 2015; Allison & Harkins 2014), with one media writer evening titling a recent piece, "How Corporate Lobbyists Conquered American Democracy" (Drutman 2015). From a sociological perspective, this finding is of interest based on theories of the contemporary relationship between the state and capital. The modern era is characterized by globalization, neoliberalization, and hyper-moblie capital, leading to the claim that, "Corporate bypassing of nation-states was paralleled by neoliberalization of nation-states, which further weakened their power to regulate" (Bonnano 2014, p. 8; Bonnano & Constance 2006). In fact, Bonanno and Constance (2006) pointed out that there are three major lines of thinking that guide scholars' thoughts on the relationship between the state and capital in the modern era including, 1) that the state is powerless to control, regulate and even react to transnational corporations; 2) while the state does not dominate capital, it is not powerless in the face of capital; 3) the state may be facing a crisis in the modern era, but it has some ability to "resist globalization forces." A case study by Bonnano and Constance (2006) indicated

support for all three of these perspectives while a separate study by Sharp and Deemer (2014) indicated that the relationship may be contradictory but it is premature to conclude that the state is powerless in the face of capital. While this research did not begin with the intent to explore such a concept, it becomes apparent from the heavy involvement in lobbying agricultural legislation by capital interests that capital has not completely bypassed the state. This leads to the logical assumption that the state does in fact retain some kind of power to regulate, control, or influence capital because capital interests are engaged in making sure their interests are represented during the policy-making process. If the state is powerless against capital, then arguably capital interests would see no need to engage the policy-making process.

Finally, the awareness that some legislation is introduced solely to send a message while some is intended to end its journey as a law is what prompted the suggestion of an agricultural policy expert to separately analyze legislation that was introduced by committee chairs. The idea behind such an analysis was that organizations may engage bills differently on the basis that they are more likely to become public law. The overall patterns of engagement on 'mover' agricultural legislation showed few meaningful differences from the engagement in the agricultural domain generally. Thus, engagement patterns are not necessarily driven by the likelihood of action being taken on a bill. While the likelihood of action is an important consideration, as indicated by at least one interviewee, these considerations seem to be nuanced rather than a function of some overarching strategy.

Is the Federal Agricultural Policy Domain Characterized Primarily by Issue Niches?

While there are a number of groups involved in the federal agricultural domain, the vast majority of those interests engage in a limited fashion. Almost half of the interest organizations in the domain lobbied only a single bill and approximately 80% lobbied three or fewer bills. Further, the majority of agricultural legislation that was lobbied at all was lobbied by only one to four organizations. On the other hand, some bills—approximately 33--were engaged by 20 or more organizations. When turning to the 'mover' analysis, a similar pattern appears. The majority of organizations lobbying 'mover' bills lobbied only one such bill, while a small number of 'mover' bills created a frenzy of engagement.

Similar to the findings of Baumgartner and Leech (2001), and supporting Hypothesis 2 (H2), these findings indicate that the agricultural domain is characterized simultaneously by policy bandwagons and policies with little interest group competition, or issue niches. This finding aligns with the neopluralist idea that engagement is dependent on the issues at hand; some issues are engaged by a plurality of interest groups while one or a few specialized groups dominate others (McFarland 2010). Cluster analysis, which indicated that only a small handful of interests create unique engagement patterns and ostensibly policy engagement niches within agriculture, provided further support for H2 from the organizational perspective.

Examining the characteristics of agricultural bills that were lobbied by the most organizations can give some insight into the nature of policy bandwagons within the domain. The five bills engaged by the most organizations in the full analysis were:

1) H.R. 3630 "Middle Class Tax Relief and Job Creation Act of 2012"
2) S. 3240 "Agriculture Reform, Food and Jobs Act of 2012"
3) H.R. 6083 "Federal Agriculture Reform and Risk Management Act"
4) H.R. 872 "Reducing Regulatory Burdens Act of 2011"
5) H.R. 1573 "To facilitate implementation of title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, promote regulatory coordination, and avoid market disruption"

When turning to the 'mover' analysis, bandwagon bills were largely the same as those in the full analysis; the five bills lobbied by the most organizations differed by only one bill across the two analyses, indicating that one of the characteristics of bandwagons is that they are 'mover' bills. Out of the above list, only H.R. 872 above was not considered a 'mover' bill.

The first three of the overall bandwagon pieces of legislation are omnibus bills that include various titles or subsections and touch a number of subjects or programs with wide ranging impacts. For instance, H.R. 3630 addressed both Social Security and Medicare ("Congress Extends Jobless Benefits" 2013). S. 3240 and H.R. 6083 were farm bill versions that encompassed 12 titles and programs ranging from agricultural research to crop insurance and nutrition assistance. While H.R. 1573 and H.R. 872 were not multi-title pieces of legislation, they did touch on programs or issues that arguably have wide

reaching impacts—commodity futures and securities exchanges and pesticide use under the Federal Insecticide, Fungicide, and Rodenticide Act and the Clean Water Act, respectively.

Insights into how or why issues become bandwagons or niches can be informed by interview responses regarding the ways that organizations decide which bills to engage. All interviewee respondents indicated that their membership is either directly consulted or heavily considered when choosing and prioritizing issue engagement. Respondents that offered further detail indicated that their organizations consider the issue's potential impact on members, members' willingness to support engaging the policy, and their organizations' capacity to impact the policy. Thus, it is logical that omnibus agricultural legislation received the most attention—it's impact on multiple programs and/or programs that are wide reaching, such as nutrition assistance, Social Security, crop insurance, and other programs as evidenced by the omnibus legislation during the 112th Congress, are most likely to impact large swaths of the population and create an impetus for action.

In light of the fact that agricultural issues are both sparsely lobbied and engaged by a plethora of interest organizations, the question of whether pluralism exists in the domain can be viewed from multiple perspectives. If the question rests solely on whether a variety of interests engage, then this research shows that it is heavily dependent on the issue. Omnibus issues tend to be lobbied by a wide variety of interest groups, sometimes hundreds of organizations, quite intensely. On the other hand, approximately 18% of agricultural legislation during the 112th Congress was not lobbied at all, while over 40%

was lobbied by only a single organization. The median number of organizations lobbying each bill was just one. Of the bills that became public law, the same mixed results appear. One of the eventual laws, H.R. 3630 "Middle Class Tax Relief and Job Creation Act of 2012," was lobbied by over 500 organizations; this was also one of the bills that included a number of provisions for high impact programs. However, two of the bills that became law were lobbied by three or fewer organizations, while the final two were not lobbied at all. All of these findings combined indicate that debate over a large number of agricultural bills was either non-existent or engaged by only one perspective; in these cases, issues were arguably not informed by a plurality of interests.

Niche Partitioning: Does it occur in the federal agricultural policy domain?

Quantitative assessments of niche partitioning through descriptive statistics and cluster analysis, as discussed in reference to H1 and H2, indicated that very few interest organizations in the agricultural domain successfully created policy engagement niches; only a handful of the organizations in the community exhibit unique lobbying patterns allowing them to occupy a distinct space to the exclusion of other organizations. Virtually all of the interests engaging federal agricultural policy exhibit similar lobbying patterns overall.

Qualitative methods were used to further examine whether niche partitioning occurs in the agricultural domain and results in this analysis were also mixed. First, interviewees indicated mixed evidence for the idea that the agricultural policy engagement setting is structured to involve only a few main legislators and committees indicating that the structure of engagement in the domain is not necessarily one that

encourages conflict. This makes a great deal of sense when considering the nebulous nature of agricultural policy—policies that impact agriculture could range from economic market regulation to environmental conservation measures, nutrition assistance programs and many areas in between.

When it came to their relationships with other organizations, interviewees indicated that both conflict and cooperation among organizations occurs in the domain but that they take on an active partitioning strategy when faced with competition, indicating both support and contradiction for resource partitioning behavior on policy engagement. Interviewees indicated that relationships of cooperation and competition are dependent on the issue at hand pointing to the idea that niches and their creation may be a dynamic rather than static concept.

Finally, and perhaps most importantly, interviewees indicated that their organizations choose and prioritize their issue engagement largely based on direct input by members or consideration of their members' needs.

Taken comprehensively, interview responses indicate mixed results for the existence of niche partitioning behavior in the federal agriculture domain, showing mixed support for Hypothesis 3a (H3a). These results are somewhat aligned with patterns seen in cluster analysis results in which a portion of organizations have carved out unique niches, but the vast majority have not.

Thus, while niche partitioning appeared in the agricultural policy domain in research in the late 1980's and early 1990's (Browne 1990; Salisbury et al., 1987); it appears that the contemporary agricultural policy domain is characterized by mixed

rather than strong niche partitioning on policy engagement. Rather than groups exhibiting unique issue engagement patterns, the majority of groups exhibit largely the same pattern. While Brown (1990) found in interviews that agricultural interest groups had narrow issue foci, avoided committing to coalitions, and minimized issue based interaction, interviews in this research did not indicate such behavior. Rather, organizations indicated that they often work in coalition and that competition and cooperation was issue dependent. And while organizations in the domain did engage generally with only a few pieces of legislation, this does not necessarily indicate that their organization has a overall narrow focus because lobbying activities outside of the agriculture domain were not examined.

Chapter 7: Conclusions

This research began as a practical and theoretical inquiry into the structure of the contemporary agricultural interest group community and ended by outlining useful initial information and understandings of the community. The project has explored theoretical questions about whether pluralism exists in agricultural policy making processes, whether agricultural interest groups create policy engagement niches, and how the competitive exclusion principle plays out in the domain. From a practical perspective, the project examined the agricultural interest group community to assess such questions as who participates, what is the manner of their participation, and how is agricultural policy characterized at the end of the first decade of the 21st century?

Quantitative analysis using lobbying disclosure data and qualitative analysis using primary interviews lead to a few important conclusions. First, agricultural policy during the 112th Congress encompassed a variety of issues but the domain while widened, continues to have a strong focus on agricultural production and the environment. These findings tentatively support that the domain is subject to 'environmentalization,' or at least attempts at 'environmetnalization.' However, this conclusion is limited, as much of the environmental legislation in the domain did not necessarily increase regulation on agricultural production, but dealt with wildfire issues or even attempted to repeal

environmental regulations on production.

Second, the federal agricultural interest group community encompasses a large and diverse set of actors across a variety of interests. In fact, multiple times in the course of gathering data for this project the sentiment, "Wow, there is an interest group for everything," crossed my mind. Buttel (2003) previously pointed to the increased involvement in agricultural protest and reform from non-farm interests, claiming that movements for change mostly come from interests that are not farm groups. When it comes to formal engagement in the agricultural policy making process, this trend is also manifested. In addition, this research indicated that a large number of corporations or companies engaged the federal agricultural policy-making process, adding to the rural sociological dialogue around the relationship between capital and the state (Bonnano & Constance 2006; Sharp & Deemer 2014). Specifically, these findings point to the fact that capital has not completely bypassed the state and that the state presumably does retain some kind of power to regulate, control, or influence capital, at least in the agricultural space.

Third, most of the organizations that engage federal agricultural policy are more specialized than general, which was expected based on the fact that the interest group community has moved toward more specific than general interests since the 1960s (Reimer 2013). General organizations that represent broad based interests, such as general farm organizations or rural development organizations, are relatively rare in the domain. However, in general, the generalist groups that do engage agricultural legislation are also highly active. When compared to other organization types, generalist

organizations were the most active, suggesting that they have not narrowed their activities compared to other types of organizations in the agricultural domain. This finding initially points to the fact that if generalist organizations are abiding by the competitive exclusion principle of niche theory, they are not necessarily doing so by severely limiting their activities compared to other types of organizations.

Fourth, while there are a number of groups engaged in the federal agricultural domain, the vast majority of interests engage in a limited fashion on very few bills. Further, the domain is characterized simultaneously by policy bandwagons and issue niches, aligning with Baumgartner and Leech's (2001) findings and the neopluralist concept that some issues are engaged by a plurality of interest groups while others are dominated by one or a few specialized groups (McFarland 2010). These findings indicate mixed support for the existence of pluralism in the domain.

Fifth, cluster analysis showed that patterns of engagement by the overwhelming majority of interest groups in the agricultural domain were similar. In addition, very few of the 1,235 organizations in the community exhibited unique lobbying patterns carving out unique policy engagement niches. Further, interview responses indicated mixed results for the existence of niche partitioning behavior in the federal agriculture domain. These results indicate that niche partitioning on policy engagement occurs on a limited, mixed basis in the contemporary agricultural domain.

Finally, interview responses indicated mixed results for the existence of niche partitioning behavior in the federal agriculture domain, aligning with patterns of lobbying

in which a portion of organizations carved out unique niches, but the vast majority did not.

Limitations

The research and thus findings are limited by a few factors. First, agricultural policy is a widely encompassing term referring to "the principles that guide government programs that influence production, the resources utilized in production, domestic and international markets for commodities and food products, food consumption and nutrition, food safety, and the conditions under which people live in rural America" (Knutson, Penn, Flinchbaugh & Outlaw 2007, p. 1). Agricultural policy in this research is somewhat narrowly defined as any legislation, proposed or acted upon, referred to Congressional agriculture committees during the 112th Congress. This narrow definition, while useful for providing a manageable universe for a nebulous concept, leaves out agricultural policies that are not legislative.

Additionally, while the legislation referred to Congressional agriculture committees has some connection to or impact on agriculture, it may also be connected to a number of other industries and policy domains. Agriculture is inextricably linked to a number of other areas such as finance, health, and many others. Because of this, an organization could appear in this database while having only a tangential relationship to agriculture. Disclosure data does not have to indicate the particular stance of an interest organization or the specific titles or portions of legislation they lobbied. Thus, the universe of interest organizations gathered here may be somewhat inflated, but any effort

to tease apart these ties and eliminate tangential organization could lead to potentially harmful or uninformed distinctions. In addition, some issues that impact agriculture may have been addressed by additional committees and may not have been referred to either agriculture committee. These issues would have been missed here. However, it was taken on good faith that if a piece of legislation impacted agriculture it was referred to either the House Committee on Agriculture or the Senate Committee on Agriculture, Nutrition, and Forestry, and that all those pieces of legislation that were referred to these committees can safely be considered "agricultural policy."

The data used to examine policy engagement only includes formal lobbying activities on legislation. However, formal lobbying is only one type of activity that interest organizations use to try to influence policy and government, while the legislative process is only one stage of the policy-making and implementation process. Other interest group activities aimed at influencing government can include public campaigns, generating evidence and advice, grassroots mobilization, political action committees, public campaigns, direct contact, direct action, and even litigation (Jones 2011; Fiorina et al., 2004). Additionally, the legislative process is not the only stage of the policy-making process that interest organizations endeavor to influence. Issue framing and rule making are just a few of the policy stages that are missed by this research. The limited scope of this single project should be addressed by future research.

By using federal legislation acted upon in any way by Congressional committees, this research may have missed some important contemporary agricultural issues where no legislation was proposed, debated, or passed during the period. However, it is likely that

the most salient, wide reaching issues facing agriculture in 2011 and 2012 are included in proposed legislation. Additionally, the Lobbying Disclosure Act of 1995 makes data on formal lobbying of legislation easily available and provides a measure of actual engagement that skirts issues of self-report data that has been used in some political science research (Halpin & Thomas 2012). As such, lobbying disclsoures were viewed as a useful measure for examining policy activity.

It must be acknowledged that the Lobbying Disclosure Act of 1995 and its updates refer to 'professional lobbyists' and only require lobbying disclosure under specific circumstances, including: 1) an organization's total expenses for lobbying during a quarter exceed $10,000 or a firm registering on behalf of a client receives income for lobbying related matters for that client exceeding $2,500 in a quarter; 2) the lobbyist makes more than a single lobbying contact and spends greater than 20% of their total time for the organization or client on 'lobbying activities' during the quarter (Maskell 2007). These thresholds mean that there is a possibility that some small interest organizations may not have been identified and examined. Nonetheless, all of the *major* interest organizations that engage in policy processes are likely to be identified using this data.

Additionally, the time period chosen for this research could be limiting, as it will exclude issues that were not prominent during the period. Interest organizations that were uninterested in the range of issues being addressed by policy makers or were dormant for a number of reasons will also be left out of this analysis. Nevertheless, the period was chosen because it provides a useful boundary to data collection as the most

recently ending U.S. Congress when the research project began.

Interviews with organizational representatives were subject to standard concerns with the validity of self-report data. Interviews also admittedly included a very small sample size of respondents that does not lend itself to capturing large patterns of partitioning behavior in the agricultural policy domain. However, interviews were chosen as the best method to further examine niche partitioning behavior because they allowed for more detailed and nuanced responses than surveys. In addition, interviews are a beginning component to comparative case studies, which Gray and Lowery (1996) argued are most appropriate for studying niche partitioning behavior. However, additional interviews and full case studies were not feasible for the scope of this research and should be addressed in future studies.

Finally, this research will not generalize to domains outside of agriculture, such as healthcare. It is possible that agricultural policy represents a unique case for a number of reasons outlined previously. Because of this limited generalizability, this research has limited ability to address niche theory overall. However, it does address niche theory's applicability to the agricultural domain and can further the understanding of the agricultural policy domain in general.

Future research

Arguably on of the most important contribution this research makes to scholarly dialogue is to provide an initial description of the contemporary agricultural interest group community that provides benchmarks and a starting point for further examination as well as a methodology for assessing the community. Many of the findings here

motivate further questions, such as whether the patterns observed in this research differ in other stages in the policy making process and other methods of influencing government, whether and how these patterns have changed over time, how engagement differs according to issue areas, the impact and importance of other resource dimensions, and the ever present question of whether and how these activities translate to influence, among others. In order to begin answering these questions and furthering the scholarly understanding of federal agricultural policy processes, researchers can build on this research in multiple ways.

First, this research looks at a single slice of the agricultural policy making process during a specific period, lobbying legislation during the 112th U.S. Congress. Future research can offer a deeper understanding of the agricultural interest group community through expanding the specific portion of the federal policy process and period under examination.

For instance, comparisons with other policy domains such as health, labor, and others could assess whether the community of interests engaging agriculture policy is unique among federal policy domains. Do other domains create engagement by a similarly large and diverse set of actors? In addition, formal lobbying is only one method of attempting to influence policy and government and the legislative process is only a single stage of the policy-making process. Future research should expand these analyses to include other methods of engaging the policy making process, such as grassroots mobilization or generating evidence and advice. In addition, future research should also examine other stages of the policy making process, such as issue framing, appropriating

funds and rule-making to name a few. These future analyses could determine how engagement occurs through other strategies and how engagement strategies shift according to the stage of policy-making.

In addition, the time span examined here could be widened to include multiple Congressional sessions that would allow comparisons of the interest group community over time. Scholars could distinguish whether and how the community has substantively changed and if larger trends appear in those changes. Time-lapse visualizations of the community could illustrate these changes for wide audiences. In addition, scholars could incorporate a widened time dimension to future studies in order to examine the progression of bills and how engagement changes as bills move toward becoming a public law—federal legislation can change in many ways from the time it is introduced or referred to a committee until it is signed into law. An analysis that examines the policy making process in reverse, identifying public laws and tracing engagement as they moved through the policy making process, could offer insight into whether and how organizations alter engagement as policies progress. Finally, time can be incorporated to further this analysis by examining new or emerging organizations compared to well-established organizations to determine if and how their policy engagement patterns differ. It would be reasonable to wonder whether these organizations use meaningfully different strategies for influence and survival; future research could assess whether this is the case.

Further sub-analyses of the current data could also be useful to develop a deeper understanding of agricultural policy making processes and how organizations engage that process. For instance, cluster analyses could be completed separately for legislation

within each domain area such as farm issues or environmental issues. These analyses could determine the characteristics of interest groups that engage a specific subset of issues compared to other issues areas and the domain as a whole. In addition, the current project could be extended to examine only the agricultural legislation that became public law during the 112th Congress. This analysis could act as an alternative illustration to the "mover" analysis that examines whether engagement differs based on the likelihood that legislation will become public law.

This research focused on niche creation within a single resource dimension—policy engagement. As Gray and Lowery (1996) pointed out, "an organization's niche is defined by a multidimensional space, not simply its place of interface with the policy-making process" (p. 95). While further examination of other resource dimensions was outside of the scope of this project, this research can provide a useful starting point for scholars to begin examining additional resource dimensions. The methodology used here—quantitative analysis of secondary, objective data-- could be applied to other dimensions. The policy engagement information developed in this project could be used as a starting point for detailed organizational case studies aimed at understanding partitioning behavior and activities on a variety of resource dimensions simultaneously.

As a method of examining additional resource dimensions and further probing the role of capital in state processes, finances could be studied through lobbying expenditure records. This data could be analyzed on its own or added to the existing policy

engagement data in order to create a deeper understanding of organizational resources across interest groups. An examination of lobbying expenditure, particularly by corporations or companies, could also offer an expanded and purposeful look at the role of capital in the federal policy-making process in order to further the rural sociological literature regarding the relationship between the state and capital.

Finally, it is vital that readers understand that this research did not address the question of whether groups *influenced* agricultural policy processes, only the ways that they engaged the process. Future research is needed to address questions of influence, for instance, by examining organizational behavior and stances compared to policy outcomes. Future research could build on this study by examining: 1) which groups are most likely to be influential and whether they correspond with those that exhibit unique patterns of lobbying; 2) if engagement on a bandwagon issue is useful for influencing outcomes from an individual interest group perspective; 3) the influence of generalist organizations compared to other types of organizations.

References

Aldenderfer, M. & Blashfield, R. (1984). *Cluster Analysis*. Quantitative Applications in the Social Sciences. Newbury Park, California: SAGE Publications, Inc. http://dx.doi.org.proxy.lib.ohio-state.edu/10.4135/9781412983648

Allison, B., & Harkins, S. (2014, November 17). Fixed Fortunes: Biggest corporate political interests spend billions, get trillions. *Sunlight Foundation*. Retrieved from https://sunlightfoundation.com/blog/2014/11/17/fixed-fortunes-biggest-corporate-political-interests-spend-billions-get-trillions/

Andrews, K. & Edwards, B. (2004) Advocacy Organizations in the U.S. Political Process. *Annual Review of Sociology*, 30, pp. 479-506.

Baumgartner, F. & Leech, B. (2001). Interest Niches and Policy Bandwagons: Patterns of Interest Group Involvement in National Politics. *The Journal of Politics,* 63(4), pp. 1191-1213.

Bonnano, A. (2014). Agriculture and Food in the 2010s. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a Globalizing World: Problems and Prospects for the 2010s* (3-15). Morgantown, WV: West Virginia University Press.

Bonnano, A. & Constance, D. (2006). Corporations and the State in the Global Era: The Case of Seaboard Farms and Texas. *Rural Sociology, 71*(1), 59-84.

Bonnen, J. T., Browne, W. P., & Schweikhardt, D. B. (1996). Further Observations on the Changing Nature of National Agricultural Policy Decision Processes, 1946-1995. *Agricultural History, 70*(2), 130-152. doi: 10.2307/3744530

Borg, I. & Groenen, P. (2005). *Modern Multidimensional Scaling: Theory and Applications* (2nd ed.). Springer Series in Statistics. New York: Springer Science and Business Media, Inc.

Browne, W. (1988). *Private Interests, Public Policy, and American Agriculture*. Lawrence, Kansas: University Press of Kansas.

Browne, W. (1990). Organized Interests and their Issue Niches: A Search for Pluralism in a Policy Domain. *The Journal of Politics*, 52(2), pp. 477-509. http://www.jstor.org/stable/2131903

Browne, W. (1994). Farmers And the US Congress: Rethinking Basic Institutional Assumptions About Agricultural Policy. *Agricultural Economics,* 11(2-3), pp. 125-141.

Browne, W. (1995). *Cultivating Congress: Constituents, Issues, and Interests in Agricultural Policymaking.* Lawrence, Kansas: University Press of Kansas.

Browne, W. (2001). *The Failure of National Rural Policy: Institutions and Interests*. Washington, DC: Georgetown University Press.

Burstein, P. & Linton, A. (2002). The Impact of Political Parties, Interest Groups, and Social Movement Organizations on Public Policy: Some Recent Evidence and Theoretical Concerns. *Social Forces,* 81(2), pp. 381-408

Buttel, F. (2003). Continuities and Disjunctures in the Transformation of the U.S. Agro-Food System. In D. Brown and L. Swanson (Eds.) *Challenge for Rural American in the Twenty-First Century* (pp. 177-189). University Park, PA: The Pennsylvania State University Press.

Caldeira, Gregory A., Marie Hojnacki, and John R. Wright. (2000). The Lobbying Activities of Organized Interests in Federal Judicial Nominations. Journal of Politics 62(1): 51-69.

Chamberlain, A. (2009). Population ecology and niche seeking in the development of gay and lesbian rights groups. *The Social Science Journal*, 46, pp. 656-670.

Charrad, M., Ghazzali, N., Boiteau, V., and Niknafs, A. (2014). NbClust: An R Package for Determining the Relevant Number of Clusters in a Data Set. *Journal of Statistical Software*, 61(6). Retrieved from http://www.jstatsoft.org/v61/i06/paper

Chen, J., Zaiane, O., & Goebel, R. (2010). Detecting Communities in Social Networks Using Local Information. In *From Sociology to Computing in Social Networks: Theory, Foundations and Applications.* N. Memon & R. Alhajj (Eds.)

Chite, R. (2014, February 14). The 2014 Farm Bill (P.L. 113-79): Summary and Side-by-Side. Congressional Research Service R43076. Retrieved from http://nationalaglawcenter.org/wp-content/uploads/2014/02/R43076.pdf

Coley, J. (2013) Theorizing Issue Selection in Advocacy Organizations: An Analysis of Human Rights Activism around Darfur and the Congo, 1998-2010. *Sociological Perspectives*, 56(2), pp. 191-212.

Congress Extends Jobless Benefits. In *CQ Almanac 2012*, 68th ed., 7-8. Washington, DC: CQ-Roll Call Group, 2013. http://library.cqpress.com.proxy.lib.ohio-state.edu/cqalmanac/cqal12-1531-87294-2553247

Crop Production Down in 2012 Due to Drought, USDA Reports. (2013, Jan. 11). USDA National Agricultural Statistics Service. Washington, D.C. Retrieved from http://www.nass.usda.gov/Newsroom/2013/01_11_2013.asp

Djupe, P. & Conger, K. (2012) The Population Ecology of Grassroots Democracy: Christian Right Interest Populations and Citizen Participation in the American States. *Political Research Quarterly*, 65(4), pp. 924-937.

Drutman, L. (2015, April 20). How Corporate Lobbyists Conquered American Democracy. *The Atlantic*. Retrieved from http://www.theatlantic.com/business/archive/2015/04/how-corporate-lobbyists-conquered-american-democracy/390822/

Ferguson, Ellyn. (2014, Jan. 6) 2013 Legislative Summary: Farm Bill. CQ Weekly (January 6, 2014): 19. Retrieved from http://library.cqpress.com.proxy.lib.ohio-state.edu/cqweeklyweeklyreport113-000004402449.

Fiorina, M. & Peterson, P. (1998). *The New American Democracy*. Needham Heights, MA: Allyn and Bacon.

Fiorina, M., Peterson, P., Johnson, B., & Voss, D. S. (2004) *The New American Democracy 4th Edition, Alternate Edition.* Pearson-Longman ISBN 9780321210012

Gray, V. & Lowery, D. (1996). A Niche Theory of Interest Representation. *The Journal of Politics,* 58(1), pp. 91-111.

Gray, V. & Lowery, D. (1997). Life in a Niche: Mortality and Anxiety among Organized Interest in the American States. *Political Research Quarterly*, 50(1), pp. 25-47.

Guither, H. D. (1980). *The food lobbyists : Behind the scenes of food and agri-politics*. Lexington, Mass.: Lexington Books.

Halpin, D. & Thomas, H.F., III (2012). Evaluating the Breadth of Policy Engagement By Organized Interests. *Public Administration*, 90(3), pp. 582-599.

Johnson, R. & Monke, J. (2013, June 21). What is the Farm Bill? Congressional Research Service RS22131. Retrieved from http://digital.library.unt.edu/ark:/67531/metadc228139/m1/?q=%22agriculture%22

Jones, H. (2011) A guide to monitoring and evaluating policy influence. Background Note: Overseas Development Institute. Retrieved from http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6453.pdf

Kaufman, L. & Rousseeuw, P. (1990). *Finding Groups in Data: An Introduction to Cluster Analysis.* Hoboken, New Jersey: Wiley-Interscience.

Knutson, R., Penn, J. B., & Flinchbaugh B. (2006). *Agricultural and Food Policy* (6th ed.). Upper Saddle River, New Jersey: Prentice Hall, Inc.

Lobao, L. & Meyer, K. (2001). The Great Agricultural Transition: Crisis, Change, and Social Consequences of Twentieth Century Farming. *The Annual Review of Sociology*, *2001*, 103-124.

Lowery, D. & Gray, V. (2004). A Neopluralist Perspective on Research on Organized Interests. *Political Research Quarterly,* 57, p. 164-175. doi: 10.1177/106591290405700114

Lowery, D. & Gray, V. (1998). The Dominance of Institutions in Interest Representation: A Test of Seven Explanations. *American Journal of Political Science*, 42(1), pp. 231-255.

Lowery, D., Gray, V., Kirkland, J., & Harden, J. (2012). Generalist Interest Organizations and Interest System Density: A Test of the Competitive Exclusion Hypothesis. *Social Science Quarterly*, 93(1), pp. 21-41.

Lui, Y., Li, Z., Xiong, H., Goa, X., & Wu, J. (2010). Understanding of Internal Clustering Validation Measures. *2010 IEEE International Conference on Data Mining*. doi:10.1109/ICDM.2010.35

Manning, J. (2011, March 1). Membership of the 112th Congress: A Profile. (Congressional Research Service R41647). Washington, D.C. Retrieved from http://www.senate.gov/reference/resources/pdf/R41647.pdf

Maskell, J. (2007, October 24). Lobbying Congress: An Overview of Legal Provisions and Congressional Ethics Rules. (Congressional Research Service Report RL31126). Washington, D.C. Retrieved from http://www.senate.gov/reference/resources/pdf/RL31126.pdf

McFarland, A. (2010). Interest Group Theory. In *The Oxford Handbook of American Political Parties and Interest Groups.* Maisel, S. and Berry, J. (Eds.). New York, NY: Oxford University Press, Inc. pp. 37-56

Milligan, G. & Cooper, M. (1985). An Examination of Procedures for Determining the Number of Clusters in a Data Set. *Psychometrika*, 50(2), p. 159-179. Retrieved from http://journals.ohiolink.edu.proxy.lib.ohiostate.edu/ejc/pdf.cgi/Milligan_Glenn_W.pdf?issn=00333123&issue=v50i0002&article=159_aeopfdociads

Norusis, M. (2008). *SPSS 16.0 Statistical Procedures Companion* (2nd ed.). Upper Saddle River, New Jersey: Prentice Hall Press.

Outlaw, J., Richardson, J. & Klose, S. (2011). Farm Bill Stakeholders: Competitors of Collaborators? *Choices*, 26(2). Retrieved from http://www.choicesmagazine.org/magazine/pdf/cmsarticle_40.pdf

Partisanship and Stalemates Lead to Record Low Approval of Congress. In *CQ Almanac 2011*, 67th ed., edited by Jan Austin, 1-3-1-8. Washington, DC: CQ-Roll Call Group, 2012. http://library.cqpress.com.proxy.lib.ohiostate.edu/cqalmanac/cqal-1390-77511-2461941

Partisan Combat Prevailed in 112th, Fiscal Cliff Narrowly Avoided. In *CQ Almanac 2012*, 68th ed., 1-3-1-8. Washington, DC: CQ-Roll Call Group, 2013. http://library.cqpress.com.proxy.lib.ohio-state.edu/cqalmanac/cqal12-1531-87288-2553077

Porter, E. (2015, Jun. 9). Corporations Open Up About Political Spending. *The New York Times*. Retrieved from http://www.nytimes.com/2015/06/10/business/corporations-open-up-about-political-spending.html?_r=0

Reimer, A. (2013). Who Influences National Rural Policy?: Identification and Description of Rural Interest Groups: National Agricultural and Rural Development Policy Center.

Salisbury, R., Heinz, J., Laumann, E., & Nelson, R. (1987) Who Works with Whom? Interest Group Alliances and Opposition. *The American Political Science Review* 81(4), pp. 1217-1234.

Sharp, J. & Deemer, D. (2014). Changing Animal Agriculture and the Issue of Farm Animal Welfare. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a Globalizing World: Problems and Prospects for the 2010s* (3-15). Morgantown, WV: West Virginia University Press.

U.S. House. House Committee on Agriculture. Text from: *Committee Membership Profile Report*. Available from ProQuest Congressional; Accessed June 6, 2014.

U.S. Senate. Senate Committee on Agriculture, Nutrition, and Forestry. Text from: *Committee Membership Profile Report*. Available from ProQuest Congressional; Accessed June 6, 2014.

Wenzlau, S. & Reynolds, L. (2012, Dec. 31). Year in Review: 10 Things You Should Know about Food and Agriculture in 2012. Worldwatch Institute. Retrieved from http://blogs.worldwatch.org/nourishingtheplanet/year-in-review-10-things-you-should-know-about-food-and-agriculture-in-2012/

Wilson, G. (2005). Farmers, Interests and the American State. In *Surviving Global Change? Agricultural Interest Groups in a Comparative Perspective*. Halpin, D. (Ed.) Burlington, VT: Ashgate Publishing Company. pp.167-187

Wright, J. (1993). *Interest Groups and Congress: Lobbying, Contributions, and Influence.* Boston, MA: Allyn and Bacon.

110th to Current Congresses (2007 to Present). (n.d.). History, Art & Archives United States House of Representatives. Retrieved from http://history.house.gov/Institution/Session-Dates/110-Current/

2011: The Year in Review. (2011, Dec. 30). Market to Market: Iowa Public Television. Retrieved from http://www.iptv.org/mtom/story.cfm/feature/9008/mtom_20111230_3718_feature

Appendix A: Coding Schemes

Organizational Domain	Definition/Example	Code
Farm	Focus on agricultural (including horticulture, aquaculture, forestry, and fishing) producers or production practices including associations that represent multiple supply chain segments if it is noted that the producer or grower is represented or included, (including vertically integrated processors and grower cooperatives that market food products because of their interest in agricultural production); farm/commodity/crop programs; agricultural inputs manufacturing or retailing (pesticide/chemical regulation falls under "environment" domain); producer income protection programs; commodity marketing programs; beginning farmer and rancher programs; food/agriculture promotion and programs including advertising programs for specific commodities and organizations that promote local food production; agricultural trade promotion or enhancement; agricultural World Trade Organization related issues; agricultural production and policy research; crop insurance; disaster designation; disaster relief on private lands; agricultural credit; forestry and forest products as business enterprises including paper, (when the focus is on forest conservation, included in "conservation" domain); biotechnology; veterinary health and concerns; domestic animal issues including health, rights, and/or welfare during production, slaughter, or research or as pets (wildlife focused groups are included in "environment" domain)	1

Table 6. Organizational Domain Coding Scheme. Continued

Table 6. Continued.

Environment & Conservation	Issues related to environmental health including pollution, water quality, EPA activity, pesticides and pesticide regulation, pest management/control or suppression; Conservation/preservation or responsible resource-use or management related to animals, plants, land or the environment and its resources; farmland conservation programs; hunter rights or advocacy; public lands programs; outdoor industry; historic preservation; focus on responsible resource use/management	2
Manufacturing	General manufacturing, fabrication, or materials science such as chemical manufacturing or chemistry focus; steel industry, steel extraction and processing; natural resource extraction. Companies that note primary or majority activities in manufacture of agricultural chemicals or inputs are included in "farm" domain, pharmaceutical or healthcare manufacturing related are included in "nutrition & health" domain, petrochemical focus is included in "energy" domain, and construction/transportation manufacturing is included in "infrastructure/development" domain	3
Energy	Energy or petrochemical production, generation, or exploration such as oil, gas, coal; energy or electricity/energy providers (including joint electricity and water providers); bioenergy/biomass/biofuels; renewable energy; mining or extractive industries for providing energy; energy conservation	4
Food	Food and beverage processing, manufacturing, or retail, including components of food and beverages such as oils and sugars (including vertically integrated food and beverage processors that include production, such as Tyson Foods, unless those processors or marketers are grower cooperatives, which are included in "farm" domain because of their grower focus); livestock processing (livestock production concerns fall under "farm" domain); foodservice; consumer interests regarding food; food safety production certifications, processing or inspection of food and agriculture products, recalls, labeling, GE food safety and labeling	5

Continued

Table 6. Continued.

Nutrition & Health[11]	Nutrition and hunger alleviation or assistance; food insecurity; obesity; general health and medicine including medical advocacy, medical education, disease and disability advocacy and/or education, hospitals, and medical technology providers, manufacturers, or managers	6
Development & infrastructure[12]	Infrastructure and transportation, especially in rural areas; engineering and construction; economic development; transportation and logistics including air, rail, and water transportation manufacturers, operators, employees, and suppliers; housing and real estate, including affordable housing development for low-income residents; community and community economic development including rural development; residential/commercial heating and cooling; engineering and construction; public water agencies or water utility providers (organizations that advocate for responsible water usage are "conservation" organizations whereas those that provide water as a utility or agricultural input such as irrigation are infrastructure)	7

Continued

[11] After suggestions from an agricultural policy content expert, the food domain was split and a nutrition domain was added as a number of groups focus on nutrition assistance. As coding was completed, a large number of organizations that were more general health based were also discovered, so the domain was expanded to include general health interests.

[12] The development and infrastructure domain was originally characterized as rural development. The category was expanded to include groups focused on development of communities and infrastructure in general, rather than only those that noted a rural focus. Some, but not a majority of organizations, in this category noted a rural focus.

Table 6. Continued.

Finance & business	Insurance (not specified as crop insurance, organizations that note a specialization in crop insurance or agricultural finance are considered in "farm" domain, all others, including health insurance are included here); accounting; trading; investment; general economic or business interests; financial consulting; government spending, taxes and tax systems; Commodities Futures Trading Commission; Securities Exchange Commission; employee compensation and benefits; commodities and securities exchange; general human resource management; general trade concerns (noted foci on agricultural trade are included in "farm" domain); government watchdog groups in any of these areas, such as taxes, are included in "Government/Rights" domain	8
Government & rights	Governmental associations, government employee or public servant associations (police, firefighters, city/county/federal employees); political party or ideology focus; civil and human rights; concerns with government systems, such as the justice system, legislative system, public policymaking and lobbying, postal service, immigration system (including immigration reform organizations) etc.; representatives of foreign governments and interests of other governmental organizations, including Native American tribes; U.S. government entities such as cities and counties, law enforcement and military issues including veterans and merchant marines and veterans' advocacy groups; government "watchdog" organizations	9
Education & research[13]	Focus on education, educational issues, and research or science that does not fall into another category or falls into multiple categories; organizations that note a research focus in a specific domain, such as agriculture, nutrition, or research and teaching hospitals, are included in their respective domains.	10

Continued

[13] The education/research domain was added as coding was completed and a number of research institutes and academic institutions, among other education focused advocacy organizations, were categorized. These organizations did not fit appropriately into an existing category, so this domain was added.

Table 6. Continued.

Information technology & communications	Data retrieval, transmission, storage, and/or manipulation; software or software development; data measurement or testing tools; communications and telecommunications based companies or organizations such as wireless and broadband providers or supporters; network infrastructure such as satellites; mass media companies; broadcasting; publishing, including communications based companies with a marketing component	11
Other[14]	Organizations that do not fall into one of the other designations, including law firms; general labor unions; senior citizens; gun rights and education; logistics and distribution; satellite industry; home/beauty retailers or manufacturers; intellectual property; general consumer interests; consulting firms; entertainment industry; abortion; tobacco processing/tobacco products manufacturers; religious focus; human services or poverty focus (e.g. self described as charities or social work—does not note a focus on human or civil rights, which would be included in "government/rights" domain); aerospace and defense; family issues; think tanks; conglomerates or corporations with major operations across multiple domains	12

[14] After initially coding all organizations, the "other" category included a large number of organizations that showed similarities, including information technology related organizations and manufacturing and related industries such as natural resource extraction. Thus, an information technology domain was added, which was expanded to include related interests that were included in the development and infrastructure code, such as communications and telecommunications interests.

Organization Scope	Definition/Example	Code
Generalist organization	Broad based and multiple interests within one or multiple domains such as agriculture, environment, 'democracy,' civil rights and wellbeing, or business	1
Commodity, trade, or member association[15]	Concerned with the interests or promotion of a single commodity, industry or professional group and represent individuals from that group such as producers, service providers, professionals, etc. and can include associations, employee organizations, cooperatives and mutual companies, unions, coalitions, consortiums, or federations	2
Single issue organization	Focus on only a single issue within a single domain, such as encouraging sustainable agricultural practices or protecting water resources and can be member organizations, but are not focused on the concerns of a trade/profession/or area as an industry and can include consortiums, associations of organizations or federations. Includes organizations that note that they are non-profits focused on a specific mission.	3
Corporation or company	Private firms and public corporations or federations/consortiums of companies – for profit, non-member	4
Academic or research institution	Public or private university; research institutes or think tanks	5
Government[16]	Government agency or body	6

Table 7. Organizational Scope Coding Scheme.

[15] Check-off type programs that are focused on advertising and increasing demand for a specific commodity are considered commodity organizations because they are focused on promoting a single commodity in order to help producers and others in the supply chain, even though they are not member organizations.

[16] The government category was added as coding was completed and a number of government agencies, such as local, state and tribal governments, or organizations concerned specifically with government processes and functions, such as policy think-tanks or immigration interests, were categorized. These organizations did not fit appropriately into an existing category, so the domain was added.

Legislative Domain	Definition/Example	Code
Farm	Focus on agricultural, including horticulture, and aquaculture, producers, production, and/or commodities; farm/commodity/crop programs including commodity storage; agricultural inputs manufacturing or retailing; producer income protection programs; commodity marketing programs; beginning farmer and rancher programs; local food/agriculture promotion and programs; agricultural trade promotion or enhancement, including related to World Trade Organization issues; agricultural research/extension and land grant universities and including related matters; agricultural credit; Livestock Marketing Fairness Act amendments; farm bill versions or amendments to multiple titles of the Food, Conservation, and Energy Act of 2008; production of and purchaser/licensing agreements for genetically engineered or modified biotechnology (not related to food safety, labeling, or other consumption aspects of GE, which are included in the "food" domain); crop insurance; disaster designations; disaster relief or assistance on non public lands (issues on public lands are considered in the "environment" domain); animal rights/welfare during production and slaughter including amendments to the Animal Welfare Act; forest products classifications	1
Environment	Conservation related to air, water, land, plants, or any other aspect of the environment; hunter rights or advocacy; issues related to environmental health including pollution, clean air, clean water, or other areas; Environmental Protection Agency activity; forest conservation programs; public land designations/permits/programs including grazing permits (e.g. National Forest programs and Bureau of Land Management issues); pesticide regulation; biomass not for energy production (e.g. biobased manufacturing); Plant Protection Act amendments; farmland conservation programs; pest control; wildfire protection; outdoor recreation and related issues; greenhouse gas emissions	2

Table 8. Legislative Domain Coding Schemes. Continued

Table 8. Continued.

Energy	Energy production, generation, or exploration including hydraulic fracturing; energy or utility provision issues; bioenergy and biomass for energy production; renewable energy; rural energy programs (including those on public lands); energy *market* regulation was included in the finance category	3
Food	Food processing, manufacturing, or retail (including animal slaughter when not related to humane treatment/welfare); consumer interests regarding food; food safety production certifications such as organic certifications; processing or inspection of food and agriculture products; food recalls; food labeling; genetic engineering or modification and food safety or labeling	4
Nutrition	Nutrition and hunger alleviation or assistance; emergency food assistance; healthy food access initiatives; food insecurity; obesity prevention; school food programs (except where these programs are included in a larger bill related to agricultural production promotion such as local and community agriculture); when nutrition programs are also included in general "welfare reform" with multiple provisions unrelated to nutrition, the legislation is included in the "other" domain	5
Rural development	Service provision including cable/internet/broadband in rural areas (rural energy programs are included in the "energy" domain); rural designations; rural well-being; rural economic development	6
Finance	General insurance; securities trading; investment regulation; benefits issues; general economic interests; tax issues; Commodities Futures Trading Commission and Securities Exchange Commission; commodities exchange; securities exchange	7
Government	Transparency initiatives; agency or department creation, combining, renaming, closure/relocation of offices, or sharing of resources; government spending/budgets; amending or authorizing agency or official duties (unless that authorization falls into another code such as trade, research, environment, or farm); general trade (if trade legislation focuses specifically on agriculture, it is included in "farm" domain; legislation can also include other areas, but must note a focus on agricultural trade)	8
Other	Legislation that does not fall into one of the other designations, including border protection and border security infrastructure initiatives for public safety promotion; immigration and alien status; foreign aid; veterans affairs; tribal affairs; unemployment assistance and workforce investment; general safety net assistance and "welfare reform" that include multiple provisions that are not nutrition focused, and general "rebuilding America" acts; medical/general health initiatives not related to nutrition; manufacturing product inspection; transportation development that does not focus on rural areas or needs	9

Appendix B: Interview Schedule

To Specialize or Not to Specialize?: Niches, Interest Groups and Federal Agricultural Policy
Interview Schedule

1. The formal mission statement of my organization is:

2. Which of the following categories, in reference to organizational scope, best describes your organization?

   a. Generalist organization b. Commodity or trade association c. Single issue organization

Please indicate to what extent the following statements are true.

3. In the agricultural policy area, there are only a few key legislators who make decisions that really matter.
   a. Always true Often true Sometimes true Rarely true Never true
   b. If always or often true, who were these legislators during the 112th Congress?

4. Legislative jurisdiction over issues in the agricultural policy area is restricted to one or a few committees.
   a. Always true Often true Sometimes true Rarely true Never true
   b. If always often true, what are these committees?

5. The agricultural policy area is marked by intense conflict and disagreement over fundamental policy goals.
   a. Always true Often true Sometimes true Rarely true Never true

6. In making our case in the agricultural policy area, we repeatedly face the same opponents on each issue that comes up.
    a. Always true Often true Sometimes true Rarely true Never true

7. In lobbying federal legislatures, how often do you find yourself in direct competition with other organizations opposed to your position?
    a. Always Often Sometimes Rarely Never

        i. If always, often or sometimes, please list up to five organizations that opposed your organization during 2011 and 2012.

8. In conducting your lobbying activity with the federal legislature, how often do you consult, communicate, or cooperate with other organizations sharing your goals that are also engaged in lobbying the federal legislature?

    a. Always Often Sometimes Rarely Never

        i. If always, often, or sometimes, please list up to five organizations with whom you consulted, communicated, or cooperated during 2011 and 2012.

9. When choosing the issues on which your organization lobbies, how does your organization choose and then prioritize those issues?

10. Please explain how your organization formulates its policy stances.

Resources

11. 9. Are there organizations nationally with broadly similar purposes with whom your organization competes for new members?

    Yes No

    a. If yes, how frequent would you say this competition is for members?

    Continuous Occasional Rare

    b. Please list up to five organizations with whom your organization competes for members:

12. Who can be a member of your organization? OR What group or population does your organization represent?

13. Is there a specific population your organization targets for gathering new members?

14. Are there organizations nationally with broadly similar purposes with whom your organization competes for funding?

    Yes No

    a. If yes, how frequent would you say this competition is for funding?

       Continuous Occasional Rare

    b. Please list up to five organizations with whom your organization competed for funding during 2011 and 2012:

15. What are your organizations' major funding sources?

16. Are there organizations nationally with broadly similar purposes with whom your organization competes for other resources such as staff members, public support, or information? Please indicate the resources:

    Yes No

    a. If yes, how frequent would you say this competition is for other resources?

       Continuous Occasional Rare

    b. Please list up to five organizations with whom your organization competed for other resources during 2011 and 2012:

**Only for organizations that lobbied on farm bill versions

17. Our previous research indicates that your organization lobbied on versions of the 2014 farm bill. Were there titles of the farm bill that your organization prioritized as more important than others?

Farm bill titles include: commodities; conservation; trade; nutrition; credit; rural development; research, extension and related matters; forestry; energy; horticulture; crop insurance; miscellaneous.

For each of the following statement pairs, which statement best characterizes your organization's strategy when faced with real or potential competition for influence in a policy area with other organizations?